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## Using the Winnebago Circ/Cat. program for collection analysis in a small school library

Pati Jo Daisy  
*University of Northern Iowa*

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## Using the Winnebago Circ/Cat. program for collection analysis in a small school library

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### Abstract

This study investigated how integrated library automation systems can assist in quantitative collection analysis in a small school library setting. The methodology used was a statistical descriptive study as it was most suited to the study of a specific collection analysis process. The study revealed that the Winnebago Circ/Cat version program can aid in the collection of raw data for analysis. The study further revealed the data manipulation abilities of the Winnebago program are limited. An automated spreadsheet program is necessary to manipulate the data and illustrate that data in graphic form.

Using the Winnebago Circ/Cat. Program  
for  
Collection Analysis  
in a Small School Library

A Graduate Research Paper  
Submitted to the  
Division of Library Science  
Department of Curriculum and Instruction  
in Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts  
UNIVERSITY OF NORTHERN IOWA

By  
Pati Jo Daisy  
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Analysis in a Small School Library

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Graduate Faculty Reader

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Date Approved

Graduate Faculty Reader

July 25, 1996  
Date Approved

Head, Department of Curriculum  
and Instruction

## **Abstract**

This study investigated how integrated library automation systems can assist in quantitative collection analysis in a small school library setting. The methodology used was a statistical descriptive study as it was most suited to the study of a specific collection analysis process. The study revealed that the Winnebago Circ/Cat version program can aid in the collection of raw data for analysis. The study further revealed the data manipulation abilities of the Winnebago program are limited. An automated spreadsheet program is necessary to manipulate the data and illustrate that data in graphic form.

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## Chapter 1

### Introduction

Students must have access to a wide range of information resources. Both students and teachers are entitled to collections that provide access to current, representative, and appropriate resources and information that will satisfy their educational needs and interests and match their individual learning styles. Resources that cover all appropriate topics and represent a diversity of points of view are essential (American Association of School Librarians..., 1988, p. 70).

This quotation aptly states the reasoning behind the need for collection assessment and development. Students and teachers depend on school library collections for information and recreational resources. Those collections must be able to meet user needs and the school librarians must be able to determine if the collections are capable of meeting those needs.

According to Plan for Progress in the Library Media Center PK-12 (Buckingham, 1992), the library media center collection:

- Provides adequate numbers of materials in various formats.
- Provides current and accurate information and represents various points of view.
- Provides support materials for current and newly adopted text or text materials and/or curriculum.
- Provides for leisure reading, listening, and viewing needs of the students.

- Provides adequate numbers of appropriate reading and interest levels (p. 29).

These guidelines reemphasize the importance of an adequate collection. In order to determine the adequacy of the resources in a school library a collection analysis must be performed.

The definition of collection has evolved over the years from “an orderly assemblage of books and journals” to the “total package of inanimate capabilities that we organize to convey information and knowledge to an identifiable clientele” (Osburn, 1992, p. 6). The concept of collection has progressed from the simple assembly of materials to the purposeful assembly of materials that are considered to be necessary for the potential users of that collection (p. 6-7).

Those actively involved in the library profession will agree that the recency and accuracy of the collection and the collection’s relevance to users is of utmost importance. The purpose of analyzing a school library collection is to get a better understanding of whether that collection actually meets the curricular needs of the users.

Collection management in a school library should be curriculum driven. The process of analysis should include attempts

to fit the collection to the curriculum. One aspect of the assessment of the collection is a simple quantitative analysis of the current contents of the collection.

The method of evaluation can follow two main courses according to Carol Doll and Pamela Barron (1991). The first is a collection-based method, measuring in terms of numbers, quality, and recency of the materials, and the second is a user-based method, using surveys to measure how well the collection actually meets the needs of its users (p. 1).

Just how to determine the condition and usefulness of the collection is the subject of considerable study. According to Doll and Barron, quantitative analysis is a collection-based method, and surveys are user-based methods. Quantitative measures focus on numbers such as the overall total, totals within various divisions of the collection and comparisons of the collection to an accepted list.

Many accepted methods for gathering and interpreting data on collections are available. The National Shelflist Count (NSC) and the Research Libraries Group (RLG) Conspectus are two well-known methods of gathering quantitative data on a collection. While the information is basically quantitative in the NSC, the RLG Conspectus

goes one step further and indicates descriptors that make the recording of scholarly value of items in the collection possible, therefore adding a qualitative element in the evaluation (MacEwan, 1993).

Other quantitative data can be gathered by comparing a collection with some form of predetermined list. Titles such as Books for College Libraries, Senior High School Library Catalog, Junior High School Library Catalog, and Elementary School Library Collection are examples of recognized standard lists for school media center collections. MacEwan (1993) adds the OCLC/AMIGOS Collection Analysis CD which is a CD-ROM based collection tool that allows a library to compare its collection against a representative and predetermined list of titles (p. 99).

Another method of gathering data on a collection is a user-based method. Information may be gathered by using surveys or community profiles. There are many types of user surveys, such as in-house studies, document delivery tests, shelf availability studies, citation studies, and interlibrary loan studies. Identifying user perceptions of the collection can prove to be a valuable tool in the overall understanding of the collection.

An accurate analysis of a school library collection is vital. In order to be sure the collection is meeting and will continue to meet the needs of the users, the school librarian must routinely perform a collection analysis and documenting the condition of the collection is a vital step in this process of analysis. That analysis will be useless, however, unless the librarian then works to develop the collection based upon the analysis and curriculum considerations.

Collection analysis when performed manually, was a labor intensive process. The introduction of automation systems to school libraries has been a rapid development in the past decade. While most often the tasks intended for automated systems have been identified as circulation and cataloging the potential for record keeping and statistical analysis has seldom been utilized (Morris 1992 p. 368).

The background of this study is twofold. First, a lack or near absence of funding for library materials in recent years has left the library collections of Southern Cal Community Schools of Calhoun County, Iowa in poor condition. Some form of documentation as to the extent of this condition is necessary. Second, there is little current published research dealing with evaluating collections

through the use an automated circulation system and an automated spreadsheet program, especially for small school libraries.

The results of this study should reveal materials availability, age, quantity, and quality. The study should also indicate what materials are most used and what areas of the collections may need improvement. Additionally, this study should indicate, along with curricular analysis, what kinds of materials are needed to improve the collection. These statistics could be presented to administrative bodies to demonstrate the need for improved funding for media center collection materials. Finally, this study could be replicated to enable others in similar situations to perform collection analysis aided by automated circulation/catalog systems for the purpose of collection analysis.

**Problem:** How can library automation assist in quantitative collection analysis?

### **Definition of terms**

**Automated circulation system** - A circulation system in which some or all activities related to loan of items from a library collection are performed by computerized procedures (ALA 1983, p. 53).

**Collection assessment** - The process of assessing the quality of a library collection, usually in terms of specific objectives or the needs of a target group of that particular collection (ALA 1983, p. 49). Furthermore, for the purposes of this study, the definition shall include determining the characteristics of the collection.

**Collection analysis** - For the purposes of this study the definition shall be a statement showing the results of an examination of a collection.

**Collection development** - For the purposes of this study the definition shall be a term which shall include a number of activities including the assessment of the curricular needs of users, collection use, collection evaluation and the identification of collection needs.

**Integrated library system** - An automated package of services provided for librarians, in which a common core of data is assembled, and used for all required subsystems. (Harrod 1990, p. 317).

**Library automation** - The use of computers and other machines by a media center to support it's systems and services (ALA 1983, p. 130).

**Library collection** - The total accumulation of materials of all



kinds assembled by a library for its clientele (ALA 1983, p. 131).

**Library materials** - Materials, of all physical substances and formats, acquired by a library to constitute its library collection. Devices for reading, viewing, or hearing the informational content are excluded (ALA 1983, p. 131).

An assessment of the nature of a collection is necessary before an analysis of that collection can be undertaken. Quality, quantity and curricular use of the school library materials are aspects of the collection that are examined. Computer technology will facilitate the gathering of data for analysis purposes. Analysis of the school library collection will facilitate the development of that collection.

It is important to pursue this study as there have been relatively few studies of this nature published. An additional consideration is the fact that no studies conducted for libraries in small school systems of 750 students or less could be found.

Small school libraries have nearly all of the same problems and concerns that larger libraries have; i.e., problems relating to personnel, time, budget, and work load. In small school systems where there is only one librarian for the library or even for two or

three libraries in the district, the work load is considerable.

Information that can be gathered relating to how the use of automation may assist the school librarian in the exercise of the required duties may be of value.

### **Significance of study**

This study should add to the body of knowledge by providing additional information and by outlining procedures for using an automated library system to assist in the areas of collection assessment, analysis, and management in a small media center. Replication of the methods used in this study should prove to be beneficial, providing guidance, hope and encouragement to those who find themselves faced with the need for collection analysis but lack the time and knowledge. Information gathered from this study should also give the librarian insight as to how to proceed locally with a plan of action for collection analysis.

While the actual plan for analysis is important, the manner in which the results can be used is also important. Whenever a librarian can document condition, use and need with statistics that can be presented to administrators in a clear and reliable manner, the advantage is substantial. One main advantage would be the

ability to assess accurately the condition and analyze the curricular needs of a collection. Documenting that analysis with facts and figures should give strength and credibility to appeals for funding.

This study was limited to the three libraries that make up the Southern Cal Community School system. The Lincoln Elementary Media Center (K-5), the Lohrville Media Center (PreK-8), and the Southern Cal High School Media Center (9-12) are all located in Calhoun County, Iowa. The current condition of all collections was studied with special emphasis given to the non-fiction collections in all three centers.

It is recognized that school library collections can be analyzed on the basis of relationship to curriculum as well as on quantitative data available about circulation, age of copyright, and comparison with standard sources. This study investigated how an automated system can assist in the quantitative measures of collection analysis.

## Chapter 2

### Literature review

The use of an integrated library system should aid in data collection and should facilitate a careful analysis of a library collection. A review of the literature has shown that this may be the case.

No studies could be found that dealt with the relationship between an automated library system and collection analysis for libraries as small as Southern Cal Community School. However three studies were found and reviewed that give background for this study, as were three books on collection analysis and evaluation.

The first study investigated the role of an automated system in cost effectiveness and manageability of the collection assessment process (Baker, 1990). The second study deals with the question of the ability of an automated library system to aid librarians in collection development (Soltesz, 1989). A third study addresses more specifically the use of circulation statistics as an analysis tool for collection development (Bertland, 1991).

The books Collection Analysis for the School Library Media Center: A Practical Approach by Doll and Barron (1991), The

Measurement and Evaluation of Library Services by Baker and Lancaster (1990), and Computerized Collection Development for School Library Media Centers by Loertscher and Ho (1986) deal with methods of collection analysis, evaluation and development respectively and their study here is warranted.

The RLG Conspectus “is a method which enables libraries to assess their collections on a subject by subject basis according to standardized criteria and to describe collection strengths and weaknesses” (Baker, 1990, p. 360). With some local revisions, this conspectus was the methodology used for collection analysis at the Lower Columbia College Library in Washington state (Baker, 1990). Reports necessary for gathering data were generated by the Dynix integrated library computer system. The reports were created with the help of the Dynix support staff which recorded the following:

- number of volumes actually used
- total number of circulations in the topic areas
- number of holdings in the topic areas (non-fiction, reference, audio-visual, and by copyright date. (Baker 1990)

One major goal of this project was to be able to communicate the collection development needs to faculty and administrators of the college. Information was also sought from the faculty asking

them to prioritize existing titles, to make weeding suggestions, to suggest titles for purchase, as well as to list their expectations of students' use of the library. An important result of the study was that the library staff gained a better understanding of the strengths and weaknesses in the collection based on actual use as well as a clearer sense of what faculty expected the library to acquire (Baker, 1990, p. 365). Finally the study revealed that outcomes of automation far exceeded the expectations. Automation provided the library with the means to conduct a manageable, cost effective, and ongoing collection assessment (p. 365).

Staff at Cuyahoga County Public Library of Fairview Parks, Ohio also dealt with the question of library automation and collection development (Soltesz, 1989). A locally developed automation system called HOMER was used to collect the necessary data through a series of twenty-seven different HOMER Management Reports several of which could be applied to collection development. One acknowledged problem encountered was the great mass of raw data that could be gathered and how best to analyze these data. Analysis was done by compiling and recording data on charts and then interpreting the information to give a better picture

of the collection. Soltesz hoped that “as time passes and experience accumulates, more sophisticated analysis will perhaps be developed...” (p. 212).

The study that most closely approximates the situation this researcher is dealing with was conducted by Linda Bertland (1991) at Stetson Middle School in Philadelphia, Pennsylvania. This was the only study found that was conducted in a school library. The study is also the only one where the library automation program used is a commercial program designed primarily for small libraries. The school size is larger than the Southern Cal Community Schools and the location is urban not rural, but many of the goals and methods used are similar to those that may be found in a smaller school situation. This report “describes the use of a computerized circulation system to gather quantitative data about collection composition and age and to measure the use of materials in a middle school media center” (p. 90). An emphasis in this report is on the “relationship between the composition of the library holdings and circulation” (p. 92). Statistics on relative use or the percent of circulation divided by the percent of the collection responsible for that circulation were gathered (p. 92). The resulting figures

indicated both demand and need for expansion in particular areas of the collection. This study also examined the circulation of materials that supported particular curricular units to determine which sections were used most and therefore were more likely to need strengthening. The statistics gathered allowed for the comparison between use and age of materials thus ensuring better weeding decisions. The primary conclusions of this report were that collection analysis helps to develop guidelines for weeding and helps to establish priorities for purchasing (p. 93).

A fourth source reviewed was the book on collection development by Carol Doll and Pamela Barron (1991). This book very carefully lays out a plan of action for collection assessment, analysis, and development. The authors suggest that collection evaluation usually falls into two categories: "evaluating the collection itself...[and] how well the collection serves the needs of the community" (Doll and Barron, 1991). The purpose of the book is to provide a technique for gathering data about a collection and then allowing informed decisions to be made based on that data. Many sound methods for gathering data such as simple random, stratified random, and systematic random sampling are detailed. The



information on how to conduct the sampling is presented very clearly along with several examples of data gathering instruments.

David Loertscher and May Lein Ho present a plan for analyzing a collection using a collection mapping process in their book Computerized Collection Development for School Library Media Centers (Loertscher and Ho, 1986). Loertscher and Ho add two elements to the process of collection analysis. They were the first to be concerned with the application of computer technology to assist school librarians in collection analysis. Secondly, they emphasize that a library media center collection should support the curriculum. The first phase of their plan involves gathering quantitative data on the collection then presenting that data graphically in the form of a chart or map. This technique is designed to help the librarian look at the collection in smaller segments. The second phase focuses on assessing the needs of the curriculum relying on surveys to collect the data. A second map illustrating what the collection should contain to meet the needs of the curriculum is developed and then compared with the first (p.15). A plan of collection development is then proposed based on the analyses of the two maps, and later, a reevaluation of the collection

is performed to document the results of the collection development efforts (p. 23).

The final source reviewed was The Measurement and Evaluation of Library Services by Sharon Baker and F. Wilfrid Lancaster. This book contains two excellent chapters dealing with the evaluation of library collections. Chapter three discusses the advantages and limitations of six evaluation approaches based on the collection. The use-centered approach to collection evaluation is addressed in chapter four and again the advantages and disadvantages of each are discussed. Studies relating to collection evaluation using the materials-centered approach and the use-centered approach are cited (1991).

Linda Bertland (1991) says in her report that “many methods depend upon random sampling and statistical methods unfamiliar to many school library media specialists. Computerized circulation systems and on-line catalogs will do much to increase understanding of collection use” (p. 96).

A review of these reports and books reveals that with the assistance of the data gathering capabilities of automated library systems, librarians have demonstrated that they can efficiently and

effectively perform collection analysis and development tasks. Furthermore, these studies and reports indicate that library automation systems and computer technology can and do play an important role in the quantitative analysis of a library collection. Automation provides a cost effective and manageable means to facilitate the process. There is, however, little research available directly relating to collection analysis in small school libraries.

## Chapter 3

### Methodology

This study was undertaken to provide a description of the process of quantitative collection analysis using an automated library system which could be replicated by school libraries of similar size. The methodology used was a descriptive study. This was used because it was most suited to the study of a specific collection analysis process. The collections used for this study are the three libraries in the schools that make up the Southern Cal Community School system. This is a district of approximately 750 students located in Calhoun County, Iowa.

The three aspects for this quantitative analysis are age, quality and use. Age of a collection is measured by copyright dates. Quality is measured by comparing titles held to titles listed in recommended sources. Use of the collection is measured by circulation statistics rates. The schools share a union catalog operated by the Winnebago Circ/Cat system version 6.3 (Winnebago Software Company). In addition to the circulation and catalog features the system supports several report functions.

Two reports generated by the Winnebago Circ/Cat system were

used to gather the data. They were the Long Form option of the Materials List report which provided the shelf list information that was used to determine copyright and for comparison with recommended lists of titles. The Usage by Material Type report which indicated the total circulation of materials in the major Dewey categories was also used.

Copyright data were transferred from the Materials List to a copyright worksheet (Appendix A). Titles held were compared with those listed in the Wilson Standard Catalog series by entering the item into the system and recording matches directly in the Wilson Catalogs. The circulation records from the past two years were collected on tabulation worksheets (see Appendices B and C).

All catalog data for the three Southern Cal Community School libraries are entered into a server computer at each of the three sites. Because of this, all lists and reports generated by the Winnebago Circ/Cat system are union lists unless otherwise specified. Separate reports can be generated for each library by selecting the user defined index option in the Winnebago Circ/Cat system. For this study a user defined index titled Materials List was created which allowed the reports to be sorted first by location

then in Dewey order. Several spreadsheets created in Microsoft Works 4.0 (Microsoft Corporation) were also used to manipulate the data. Information gathered for analysis was grouped into predetermined categories based on a combination of Dewey classes (see Appendix D).

The Long Form option of the Materials List report sorted by the user defined index produced data on the age of the collection (see Appendix E). These data were in the form of a listing of all volumes held in an individual center, including copyright date. A separate list was generated by the Winnebago Circ/Cat system for each of the classification categories listed in Appendix E. Separate lists were necessary simply for the sake of manageability. Staff at each center manually recorded a hash mark for the copyright date of each title on the Materials List in the appropriate space on the Copyright Date Record Form (see Appendix A). A separate record form was made for each classification category. The information gathered was then manually transferred to a Microsoft 4.0 spreadsheet titled Age of Collection (see Appendix F). This spreadsheet, created by the researcher, then calculated the average date, average age and total number of titles for each classification category and for the total

collection. A separate spreadsheet was completed for each library (see Appendix G1-3).

Information was gathered for a quantitative analysis of recommended titles held by comparing the collection with a standard list of recommended materials. The Wilson titles Senior High School Library Catalog 14th ed., Middle and Junior High School Library Catalog 7th ed., and the Children's Catalog 16th ed. were the sources used. This task was divided among the staff of the three libraries with staff at each center checking only the appropriate Wilson Catalog for their level.

The actual comparison was done by typing in each title listed in the Wilson catalogs at the circulation screen of the Winnebago program. About 50 pages from the Classified Catalog section of the Wilson Catalog could be covered in one uninterrupted hour. Each title located was then marked directly in the Wilson Catalog. The titles held locally for each center were then manually counted and recorded on the Number of Recommended Titles Held Form for each of the Categories for Analysis (see Appendix H). The Number of Recommended Titles Held Form included the total number of titles suggested by the Wilson Catalog for each of the classification

categories for analysis. The total number of titles recommended by the Wilson Catalog were also manually counted and entered on this form. This information was then transferred to a Microsoft 4.0 spreadsheet Number/Percent of Recommended Titles Held (see Appendix I1-3). This spreadsheet, created by the researcher, calculated the total number of recommended titles, total number of titles held at each of the three centers, and the district total; percentages at each center were also calculated in this spreadsheet.

The tool used to gather data on the circulation of the collection in the school year 1993-1994 was a simple tally sheet produced by the Demco Company (see Appendix C). The data on circulation of materials from the various divisions of the collection was manually recorded on a daily basis and later transferred to the Daily Circulation Statistics spreadsheet (see Appendix J1-J3).

The information for circulation in the 1994-1995 school year was generated by the Usage By Material Type report available in the Statistical Reports Menu of the Winnebago Circ/Cat system (see Appendix D). Because the Winnebago Circ/Cat system went on line at Southern Cal on October 20, 1995 the circulation data used for this study was recorded for both years from October 20 to the end of the



school year. These data were transferred to a copy of the Circulation Statistics spreadsheet (see Appendix K1-K3).

For each of the areas of quantitative analyses; age, quality and use, raw data were collected with the assistance of the Winnebago Circ/Cat system. The system manipulated the data for use. The data for age and quality, however, had to be transferred to spreadsheets for meaningful analysis.

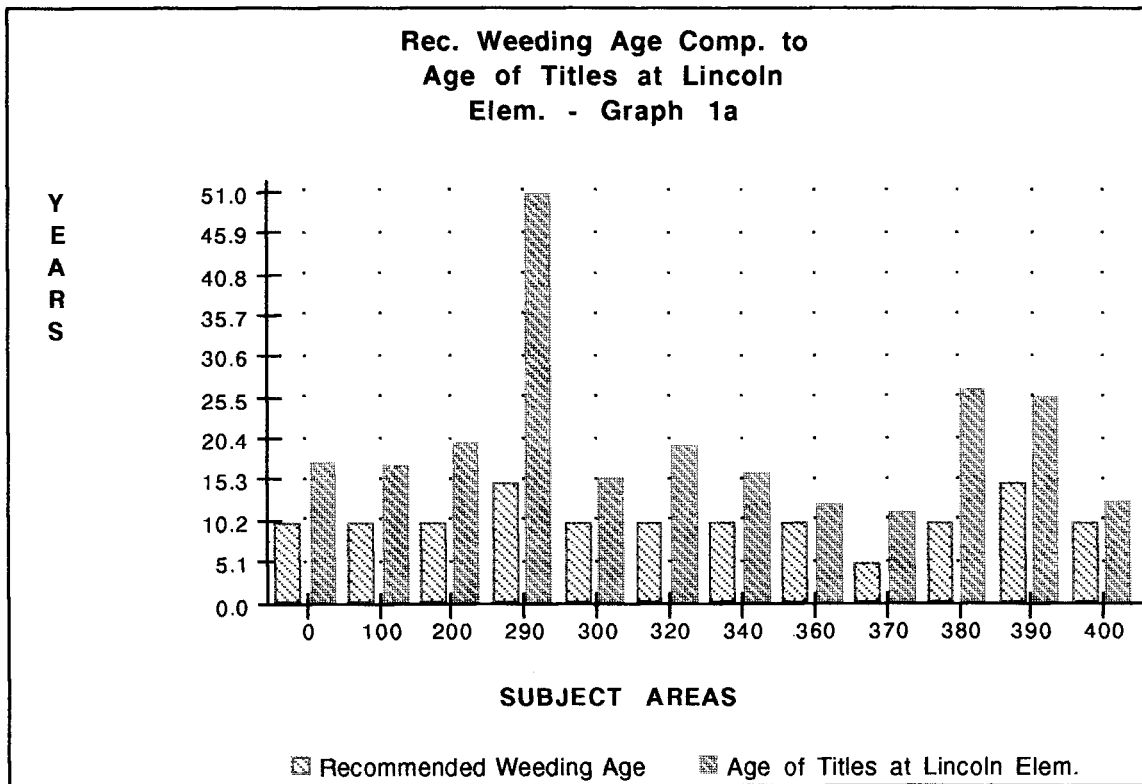
## Chapter 4

### Analysis

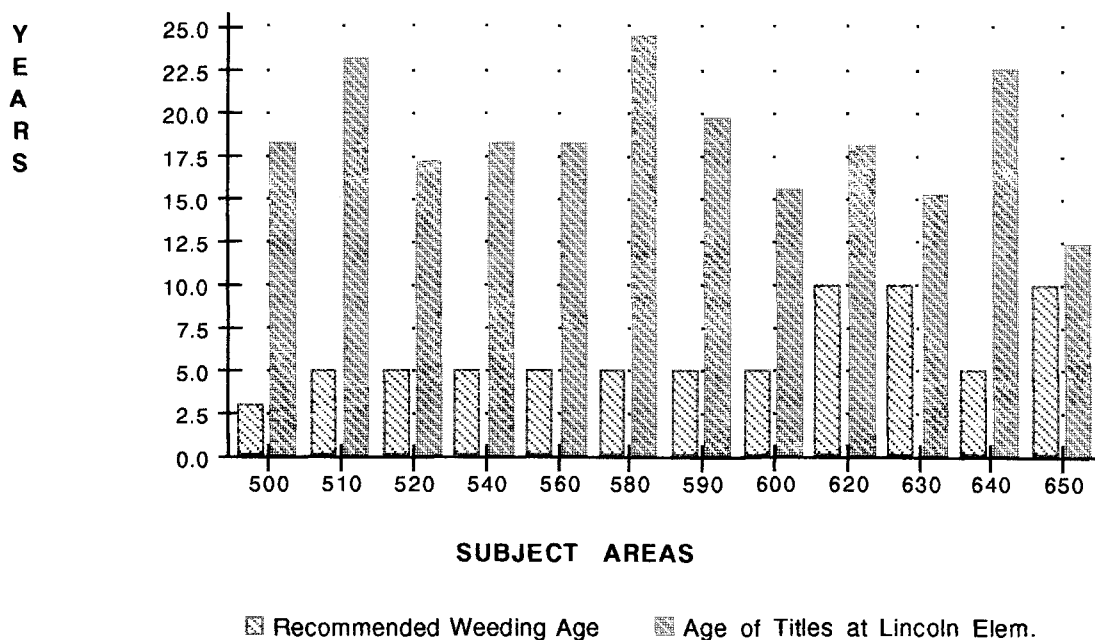
#### **Analysis of collection - Age**

Analysis of the data on the age of the collection at each library was achieved by categorically summarizing the data gathered on the Copyright Date Record Form (see Appendix A). A spreadsheet titled Age of Collection - Analysis Form was used for this process (see Appendix F). An individual spreadsheet was created for each center. This information was compared to the recommended standards for the maximum age of materials in the individual classification categories based on Weeding the Library Media Center Collection by Buckingham (1984). In instances where Buckingham recommended a range of dates the oldest date was entered into the spreadsheet. For categories such as the arts, literature, biographies and American history no date was used. These areas were not evaluated on the basis of date due to the fact that in many cases these materials should be judged on quality, scope and usefulness to the local collection not just age alone. A bar graph illustrating the age of each of the remaining categories compared to the maximum recommended age was then plotted for each of the three libraries.

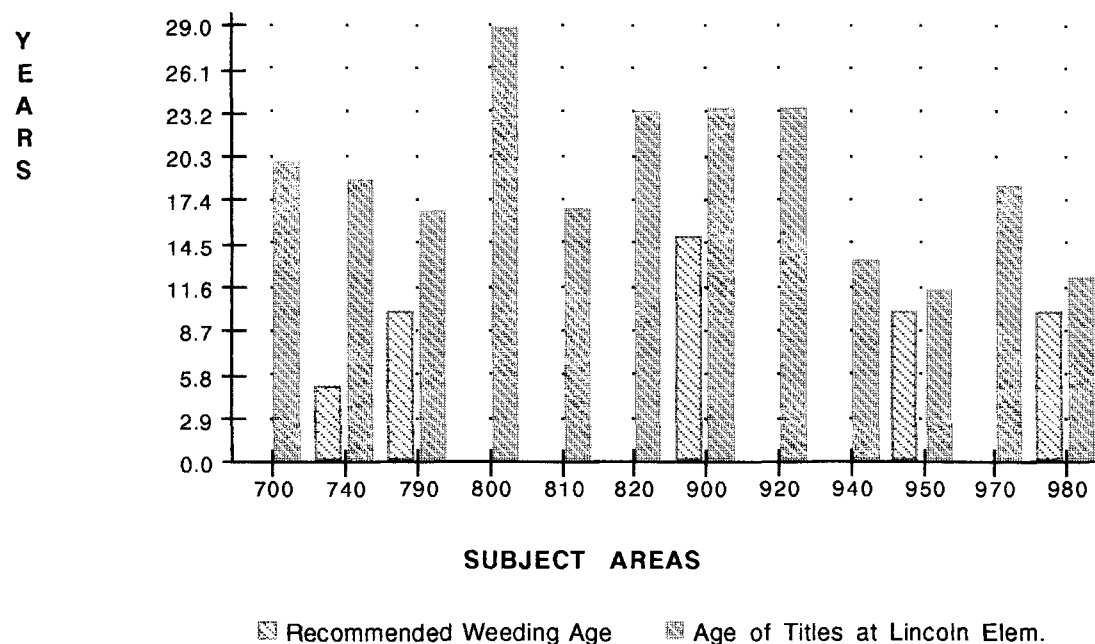
The Age of Collection - Analysis Form demonstrates that the average age of the non-fiction collection at the Lincoln Elementary Media Center is 20 years, the average copyright date is 1976 and the total number of titles is 1,813 (see Appendix G1). Graph 1a-1c plotted from this spreadsheet clearly shows that the entire non-fiction collection is extremely out of date with the worst areas being in the 500's and first half of the 600's or the areas of the natural sciences and the general and applied sciences.



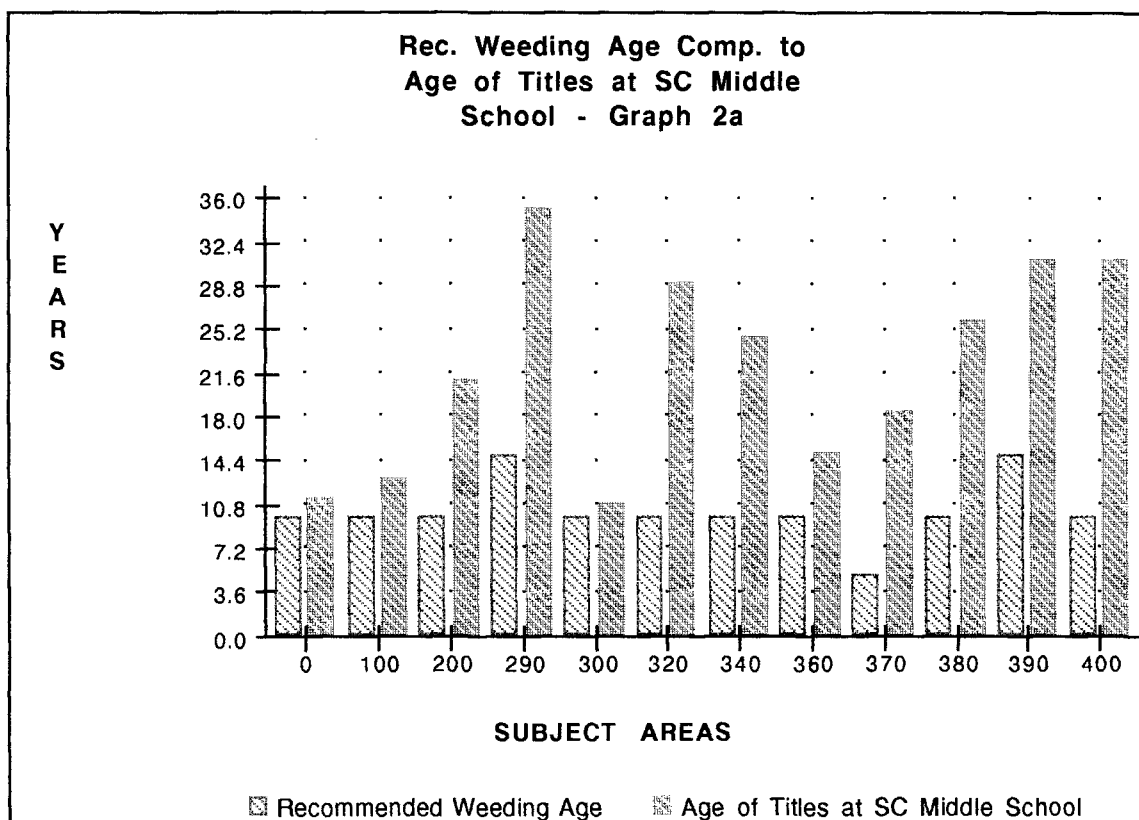
**Rec. Weeding Age Comp. to  
Age of Titles at Lincoln  
Elem. - Graph 1b**



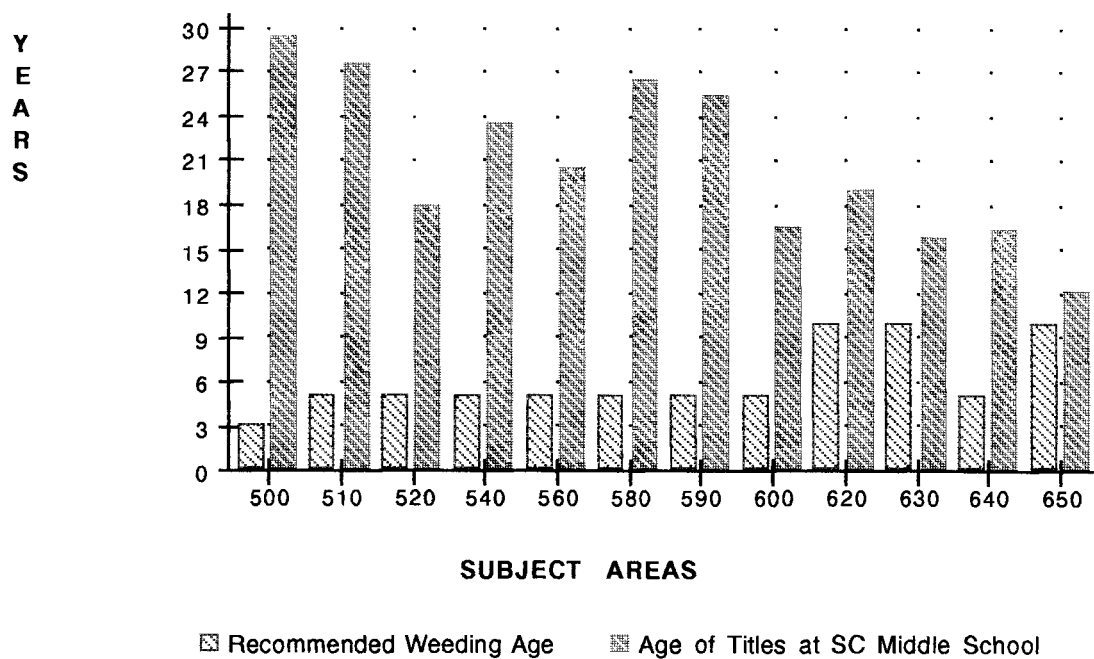
**Rec. Weeding Age Comp. to  
Age of Titles at Lincoln  
Elem. - Graph 1c**



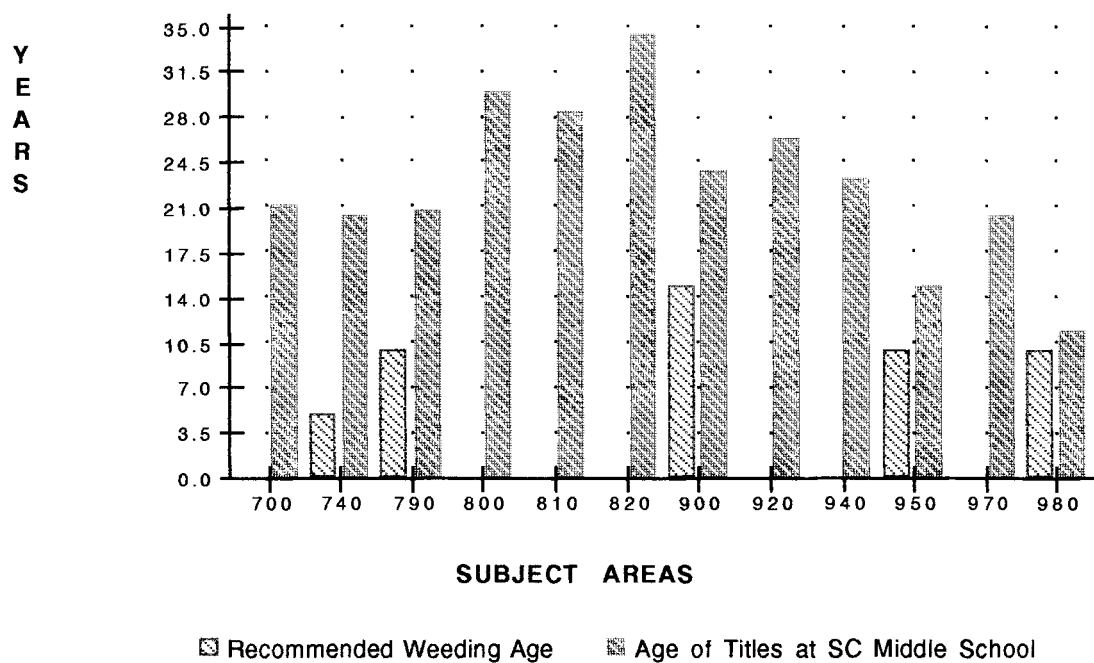
The Age of Collection - Analysis Form demonstrates that the average age of the non-fiction collection at the Southern Cal Middle School Media Center is 23 years, the average copyright date is 1973 and the total number of titles is 2,477 (see Appendix G2). Graph 2a-2c plotted from this spreadsheet shows that the situation is even worse here. The collection needs updating from the 320's through the 700's or the areas of sociology, languages, natural science, applied science and fine arts.



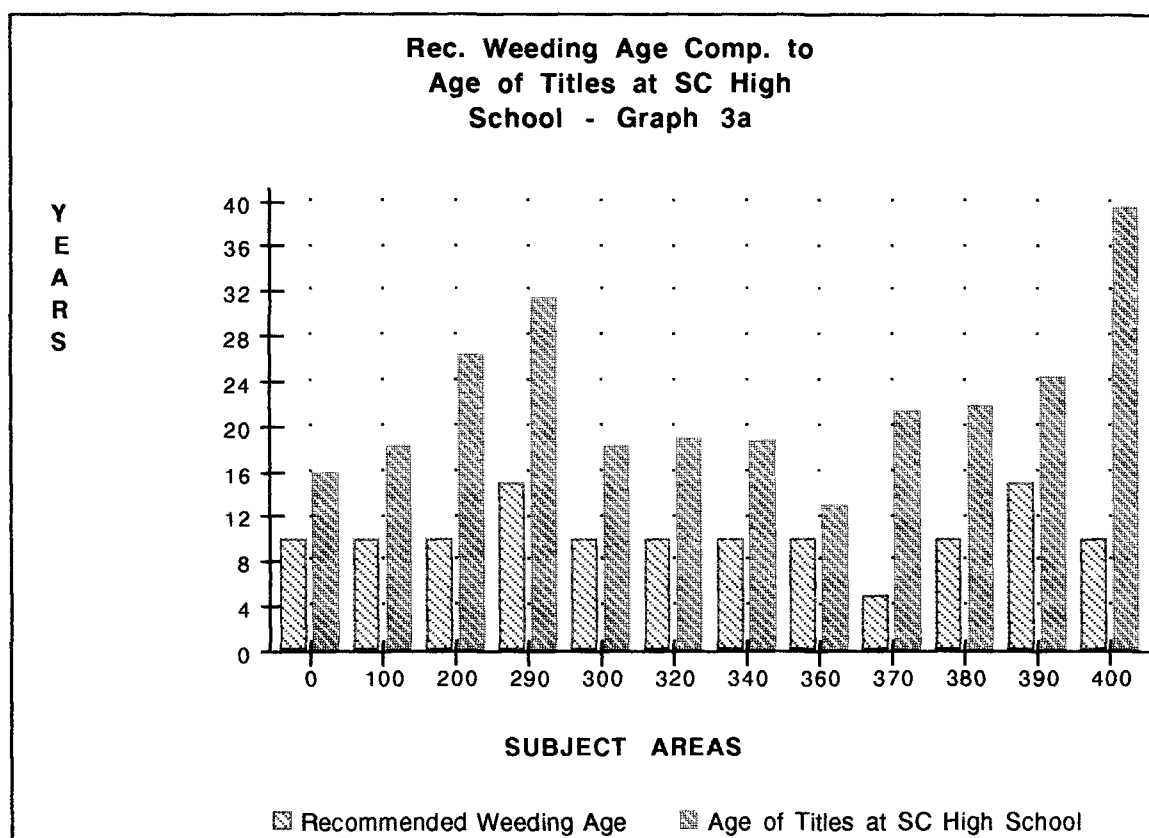
**Rec. Weeding Age Comp. to  
Age of Titles at SC Middle  
School - Graph 2b**



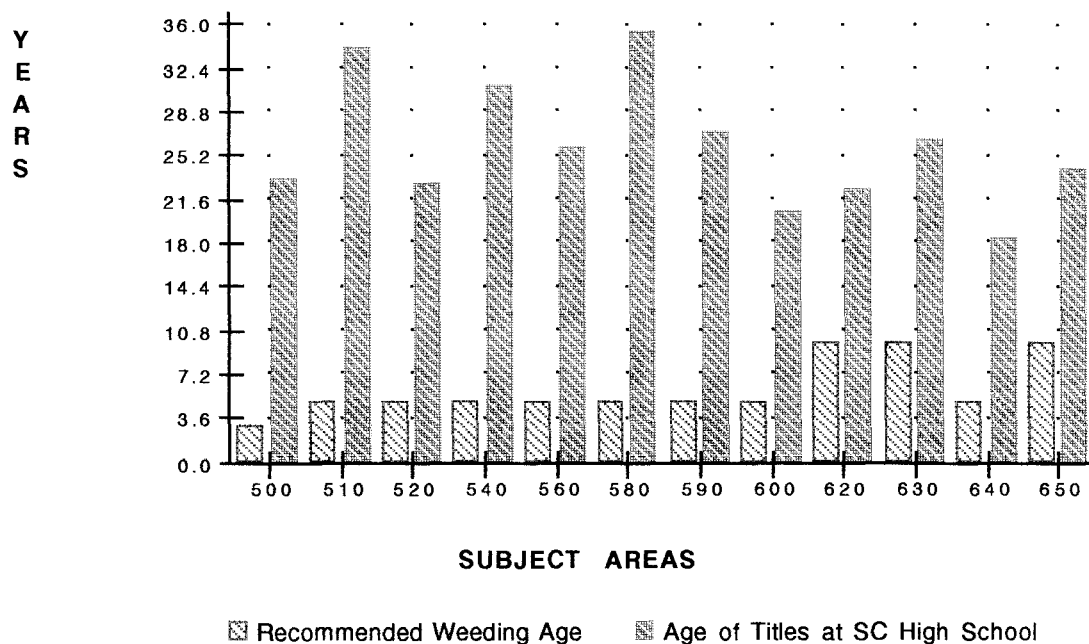
**Rec. Weeding Age Comp. to  
Age of Titles at SC Middle  
School - Graph 2c**



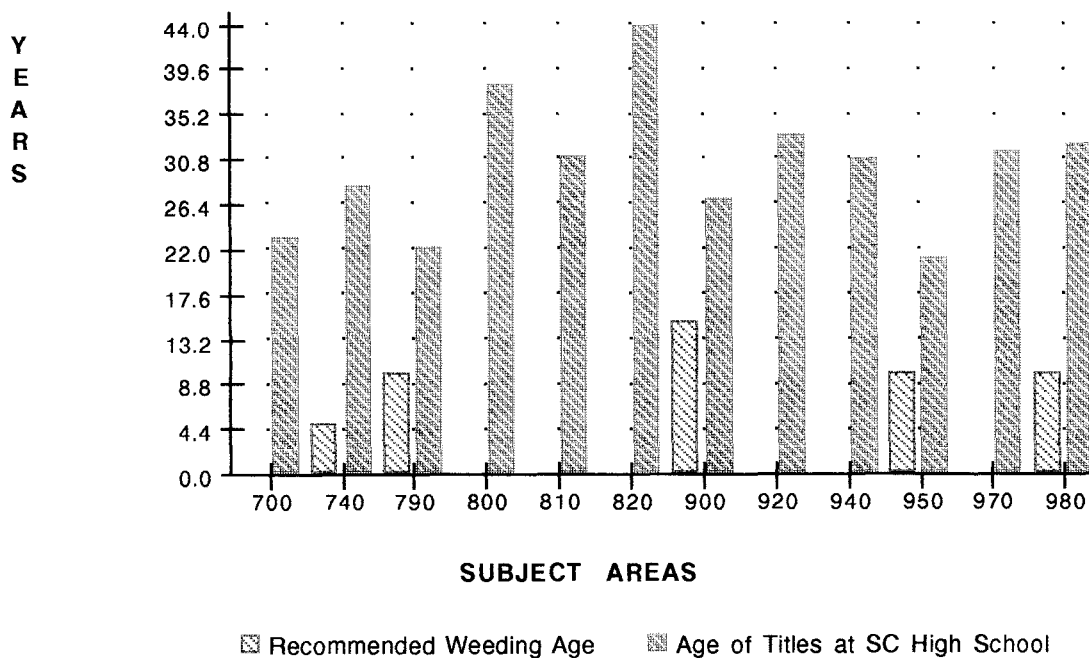
The most serious situation, however, is in the Southern Cal High School Media Center. The Age of Collection - Analysis Form demonstrates that the average age of the non-fiction collection is 27 years, the average copyright date is 1969, and the total number of titles is 2,976 (see Appendix G3). Graph 3a-3c plotted from this spreadsheet shows a collection that is depressingly old, with the 500 and 600's or the natural and applied sciences being the areas with the greatest need for updating.



**Rec. Weeding Age Comp. to  
Age of Titles at SC High  
School - Graph 3b**



**Rec. Weeding Age Comp. to  
Age of Titles at SC High  
School - Graph 3c**





### **Analysis of process - Age**

This disturbing but completely accurate picture of the age of the collection was facilitated by using the Winnebago system. Time would not have been available to do this manually. To generate the necessary reports from the Winnebago Circ/Cat system took only a few minutes. The tallying of the information from those reports was done very quickly by staff and student volunteers during slack times at the circulation desk. Most other recommended methods for determining the age of a collection rely on random sampling using either the shelf list or recording information directly from the book on the shelf which is very time consuming and does not offer as accurate a picture.

A second important factor in gathering this data was access to an easy to use spreadsheet program as was pointed out in the Loercher and Ho study (1986, p ). The ability to quickly transfer information tallied by the staff to a spreadsheet created by the researcher and for the original spreadsheet form to be copied to create reports for each center saved an enormous amount of time.

### **Analysis of collection - Quality**

The quantitative analysis of the quality of the collection began

by comparing the total number of titles recommended in the Wilson Catalogs to the number of those titles held by each library. This information was recorded on the Number/Percent of Recommended Titles Held form (see Appendix F). An individual spreadsheet was created for each library.

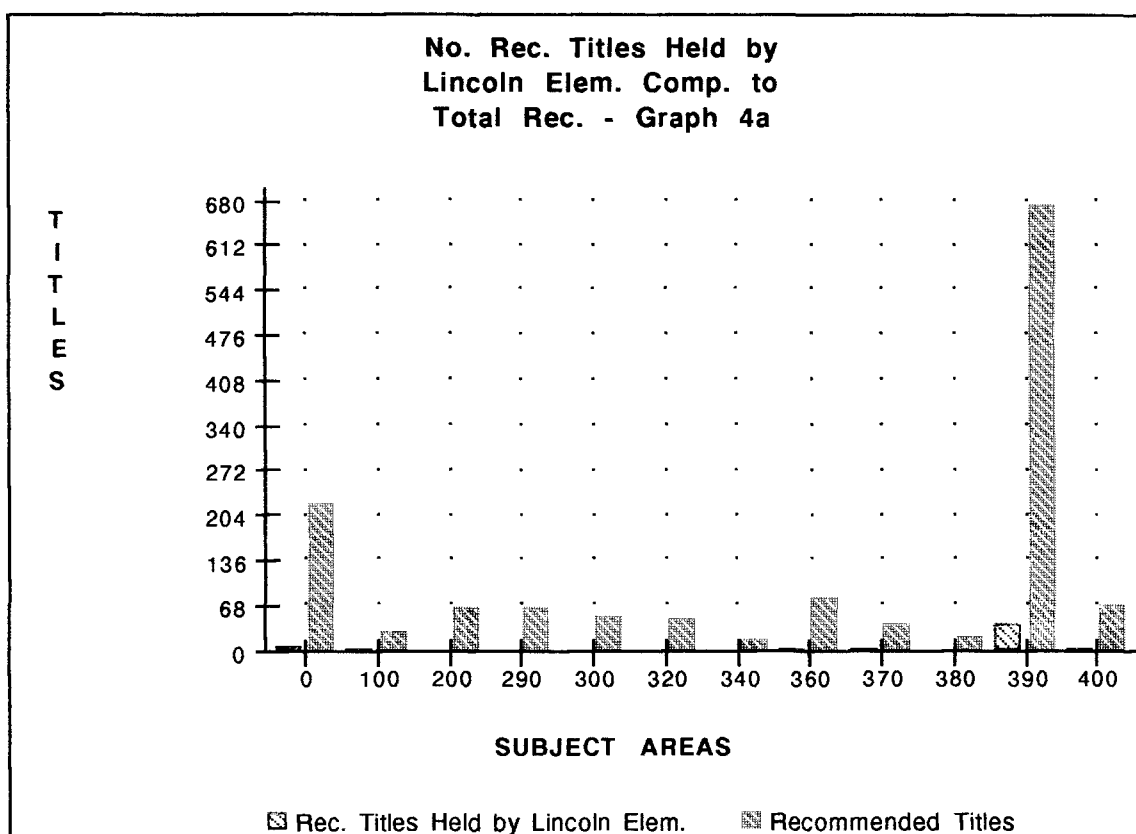
The spreadsheet reported that of the 4,601 titles recommended in the Children's Catalog the Southern Cal Community School district holds 594 titles or 12.91%. The Lincoln Elementary Media Center holds 258 of those titles or 5.61%, the Southern Cal Middle School Media Center holds 291 titles or 6.32%, and the Southern Cal High School holds 45 titles or .98% (see Appendix I1).

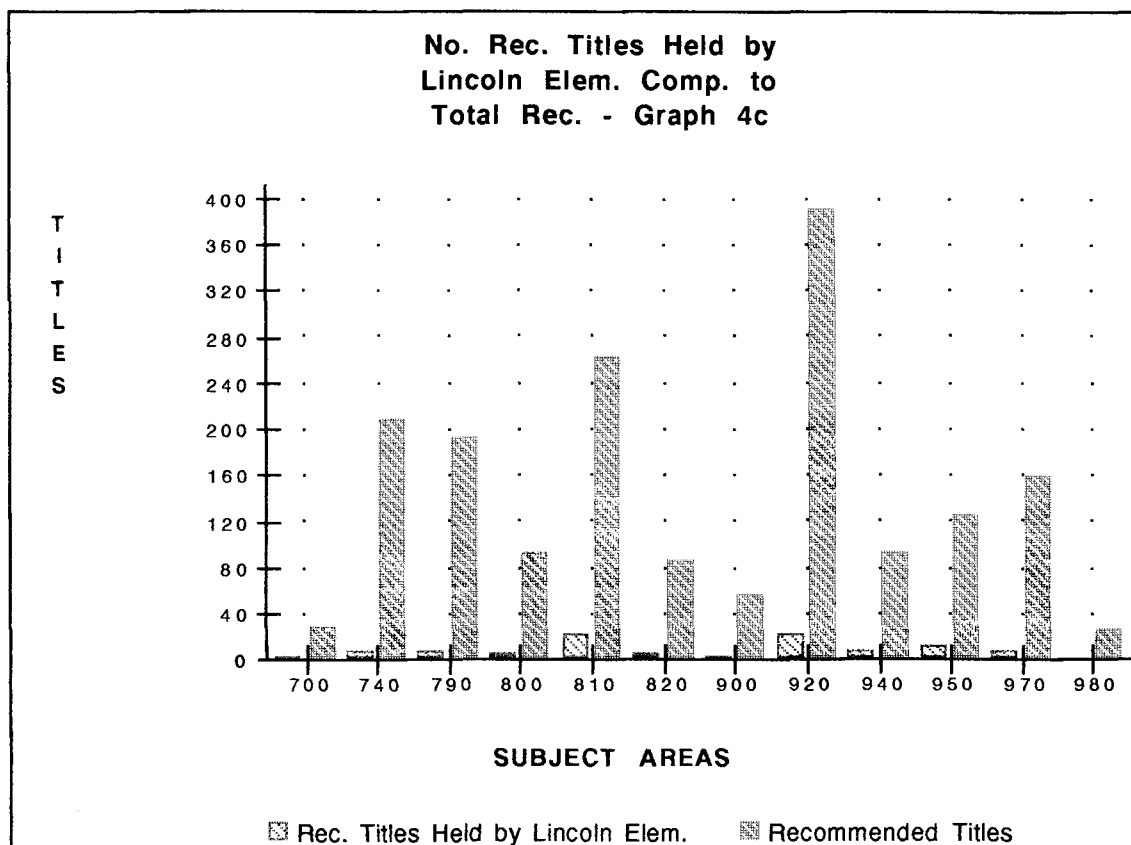
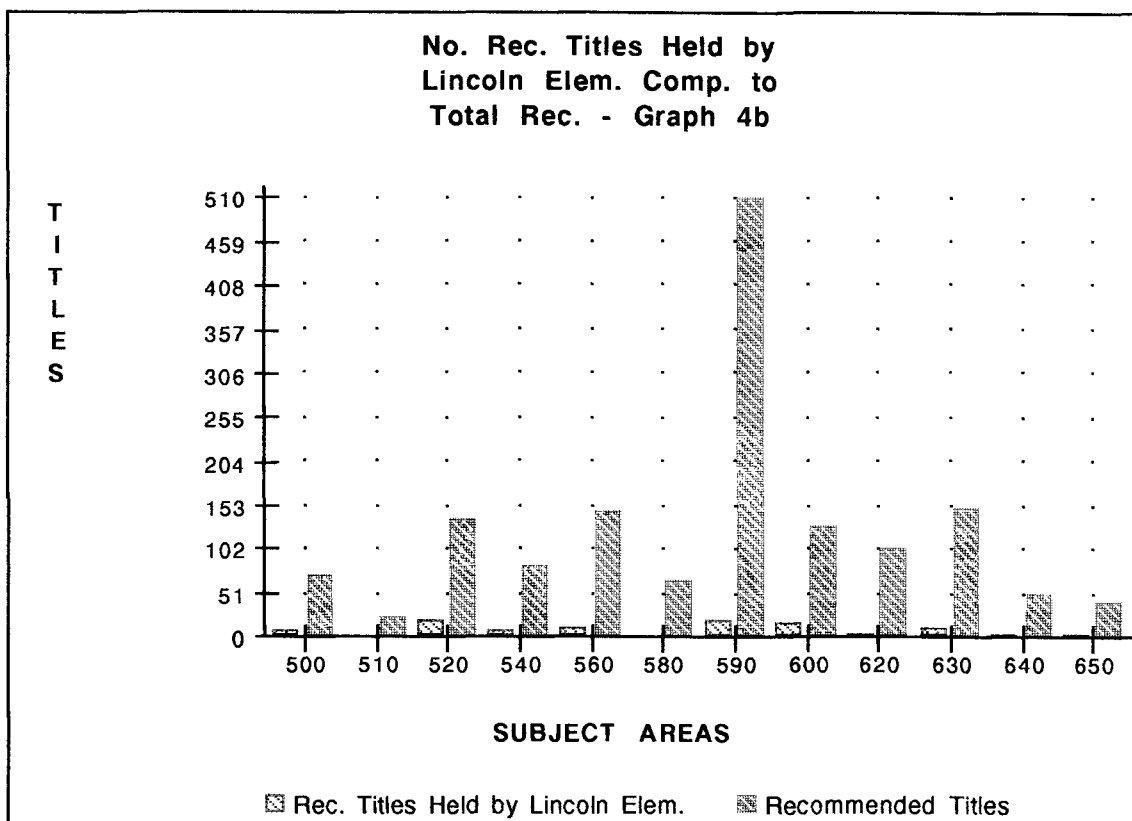
The spreadsheet reported that of the 3,136 titles recommended in the Middle and Junior High School Library Catalog the district holds 357 titles of 11.38%. The Lincoln Elementary Media Center holds 92 titles or 2.93%, the Southern Cal Middle School Media Center holds 115 titles or 3.67% and the Southern Cal High School Media Center holds 150 titles or 4.78% (see Appendix I2).

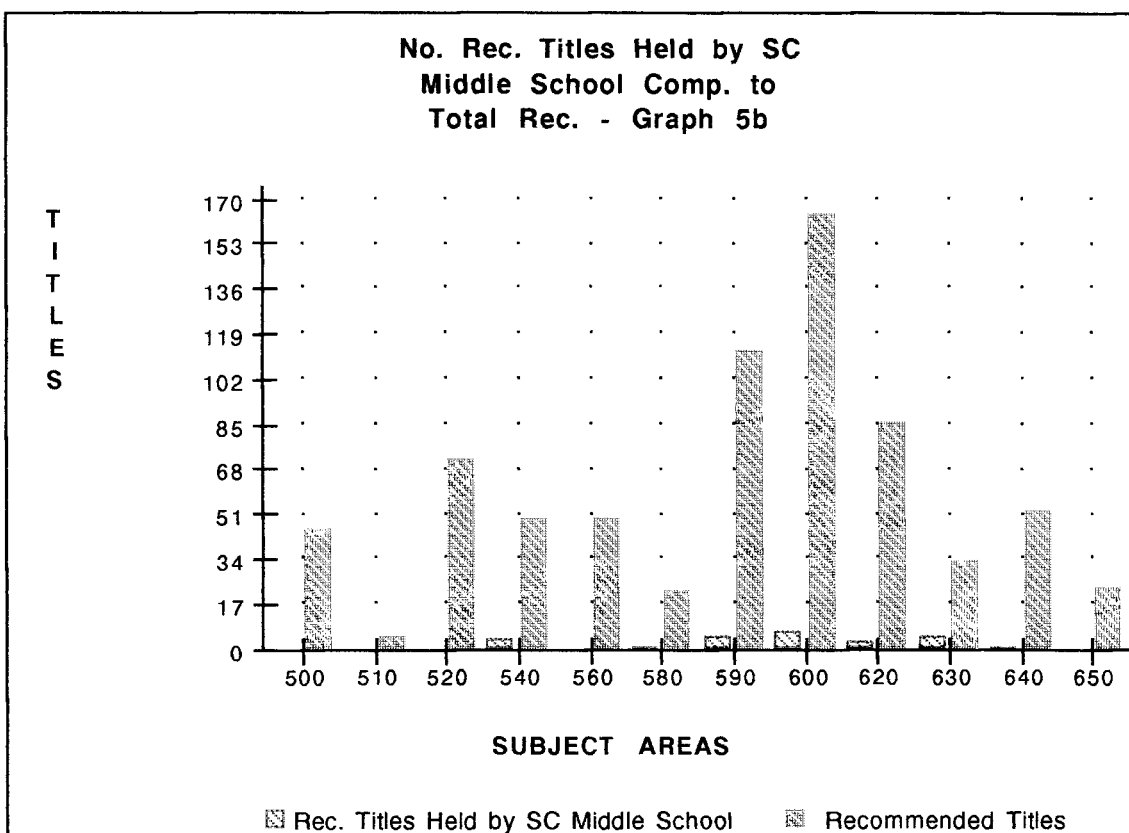
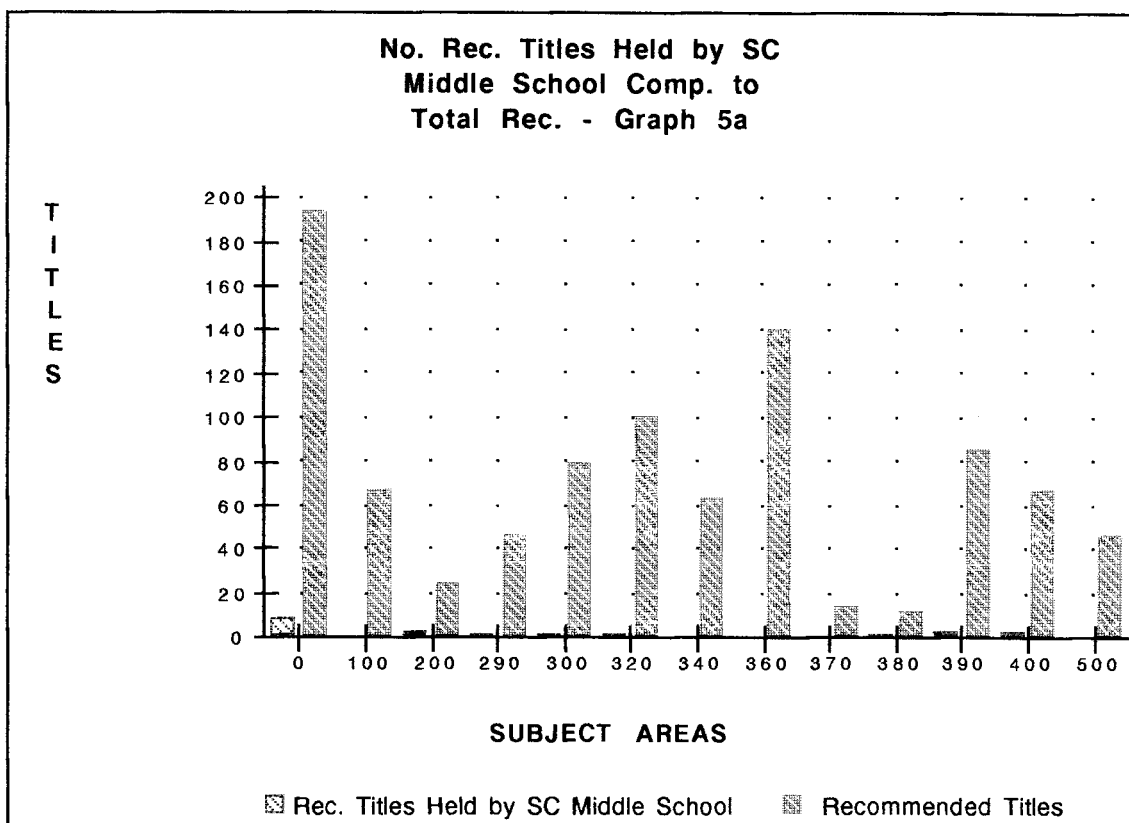
The spreadsheet reported that of the 5,175 titles recommended in the Senior High School Library Catalog the district

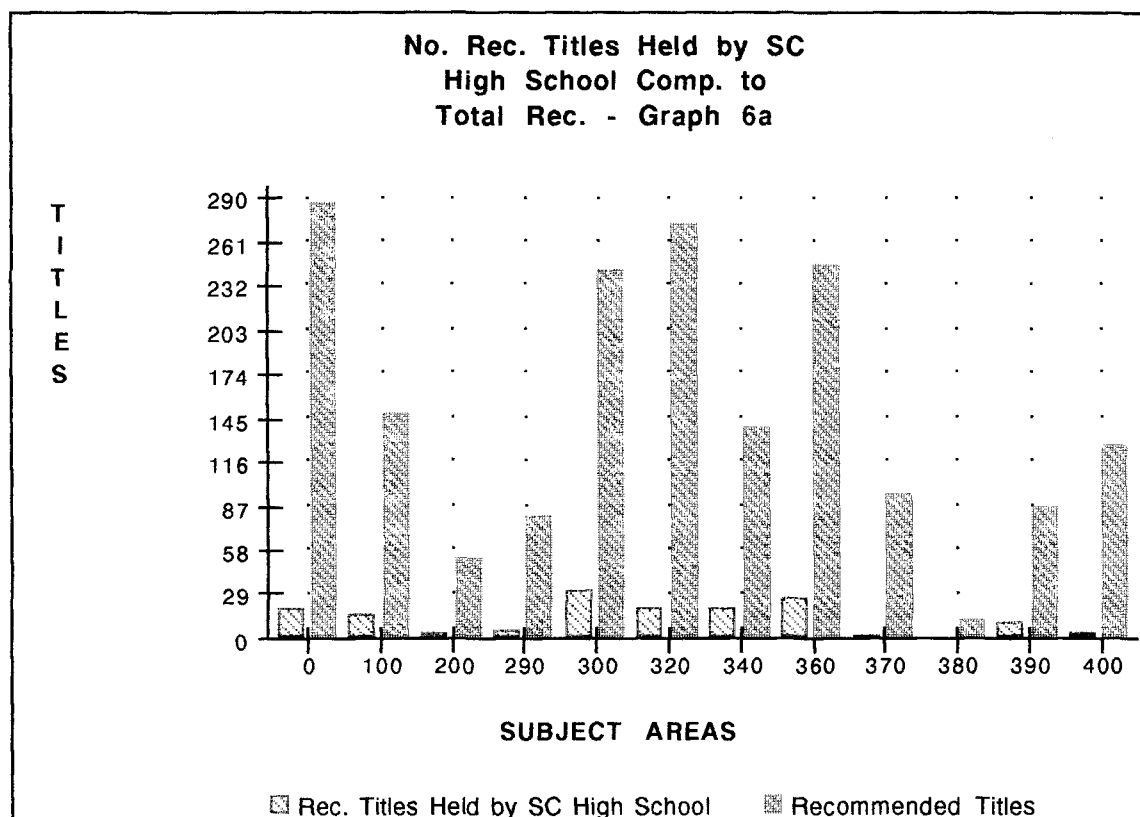
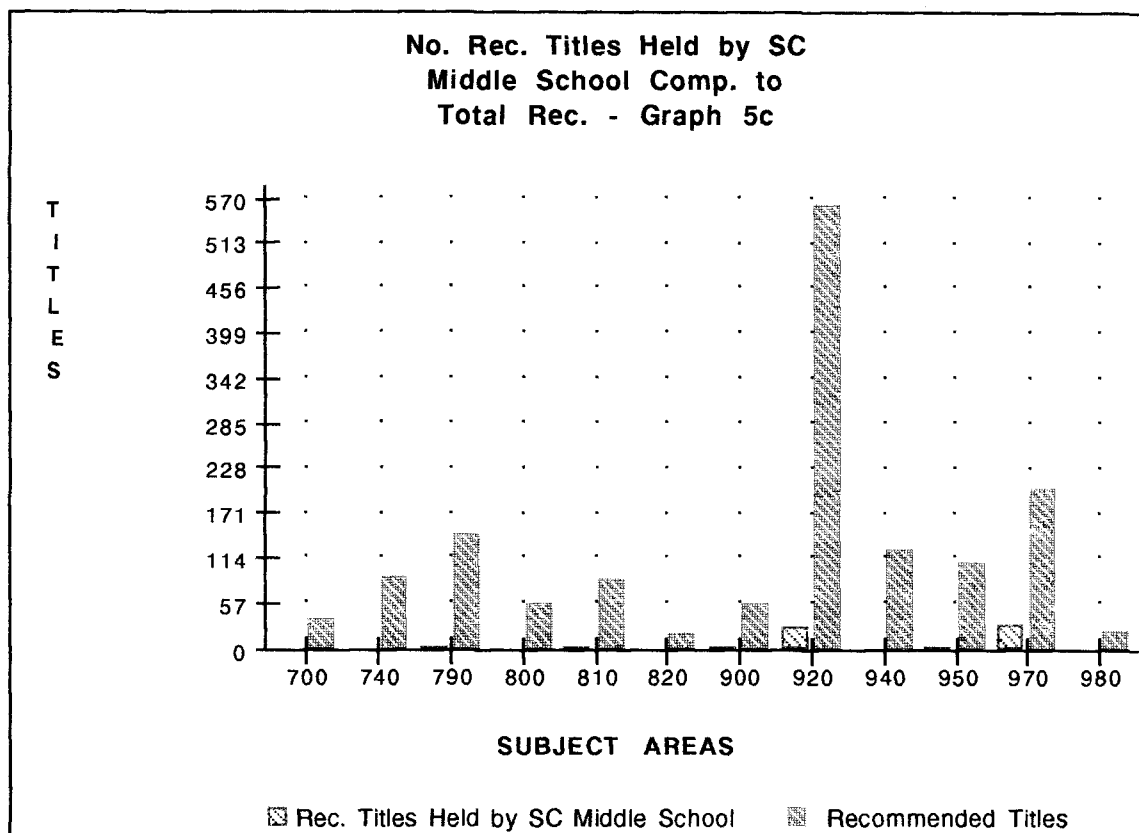
holds 449 titles or 6.67%. The Lincoln Elementary Media Center holds 19 titles or .28%, the Southern Cal Middle School Media Center holds 75 titles or 1.11%, and the Southern Cal High School Media Center holds 355 titles of 5.27% (see Appendix I3).

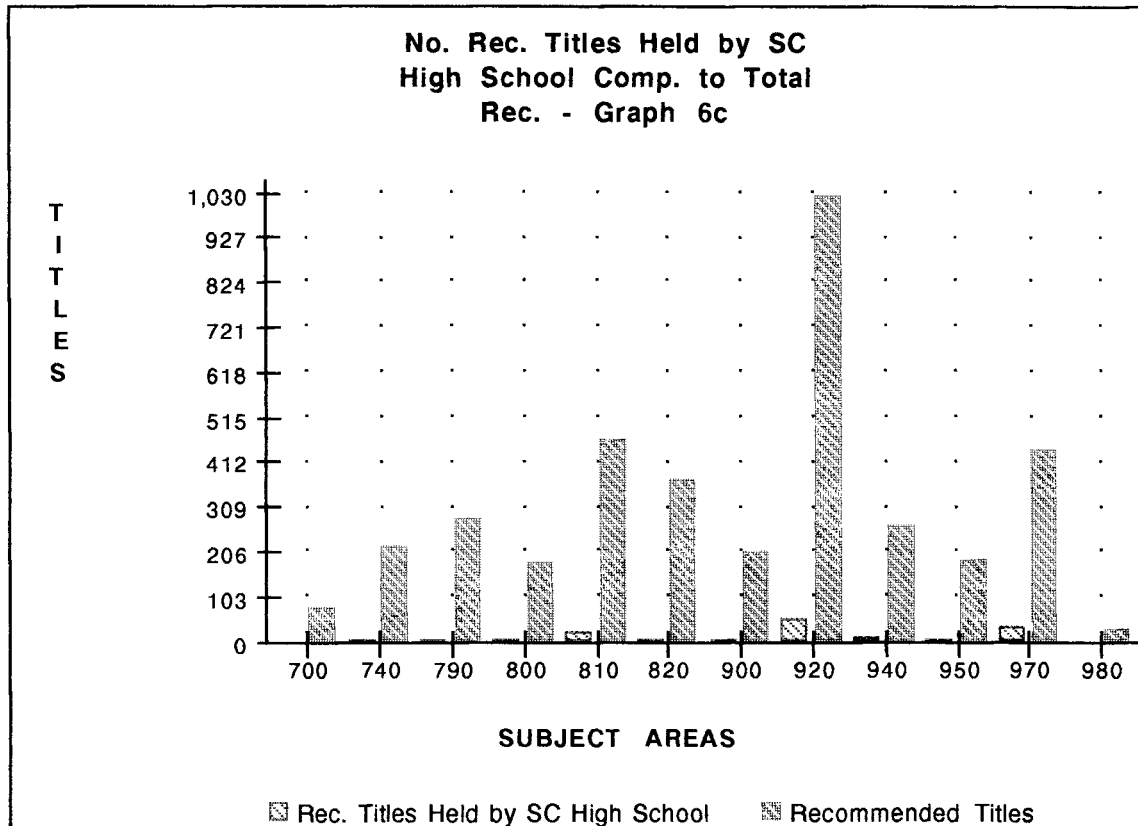
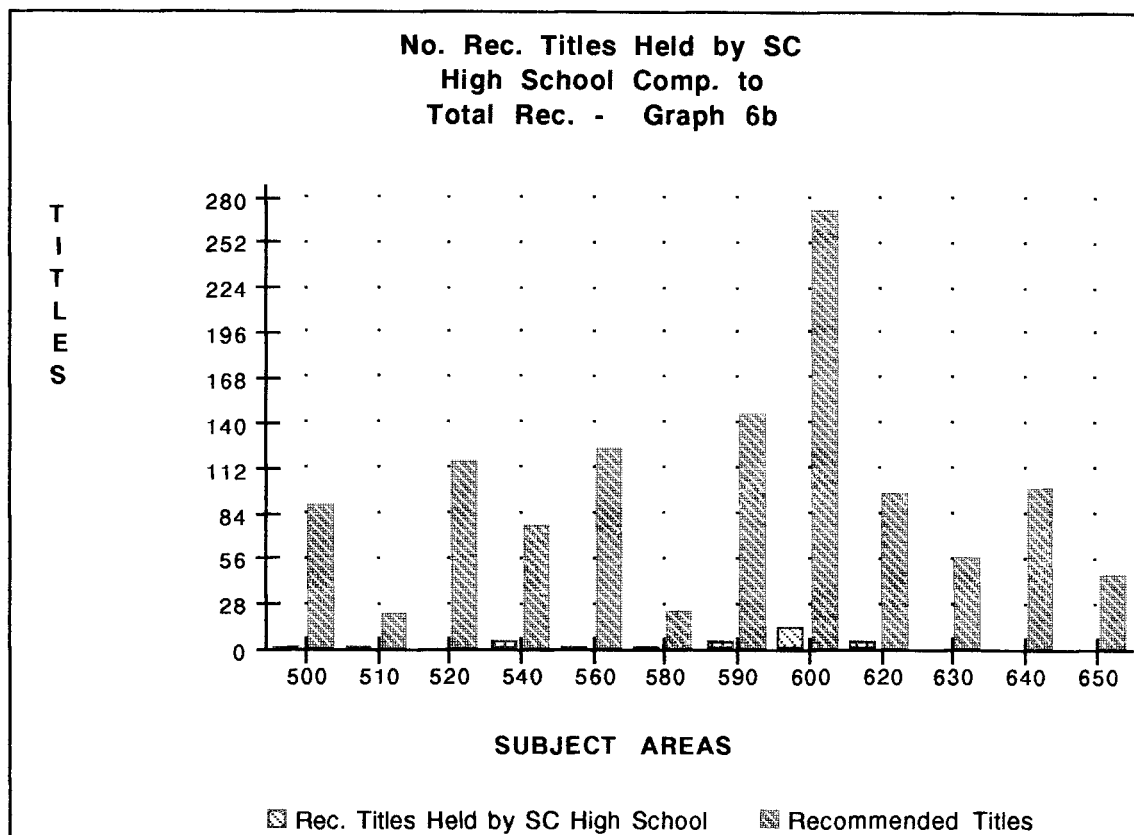
Bar graphs were plotted for each center to illustrate the number of recommended titles held compared to the total number recommended by the Wilson Catalog for each of the classification categories. Unfortunately due to the extremely low numbers held by the Southern Cal libraries, these graphs were almost useless, as is illustrated below in Graphs 4a-c through 6a-c.



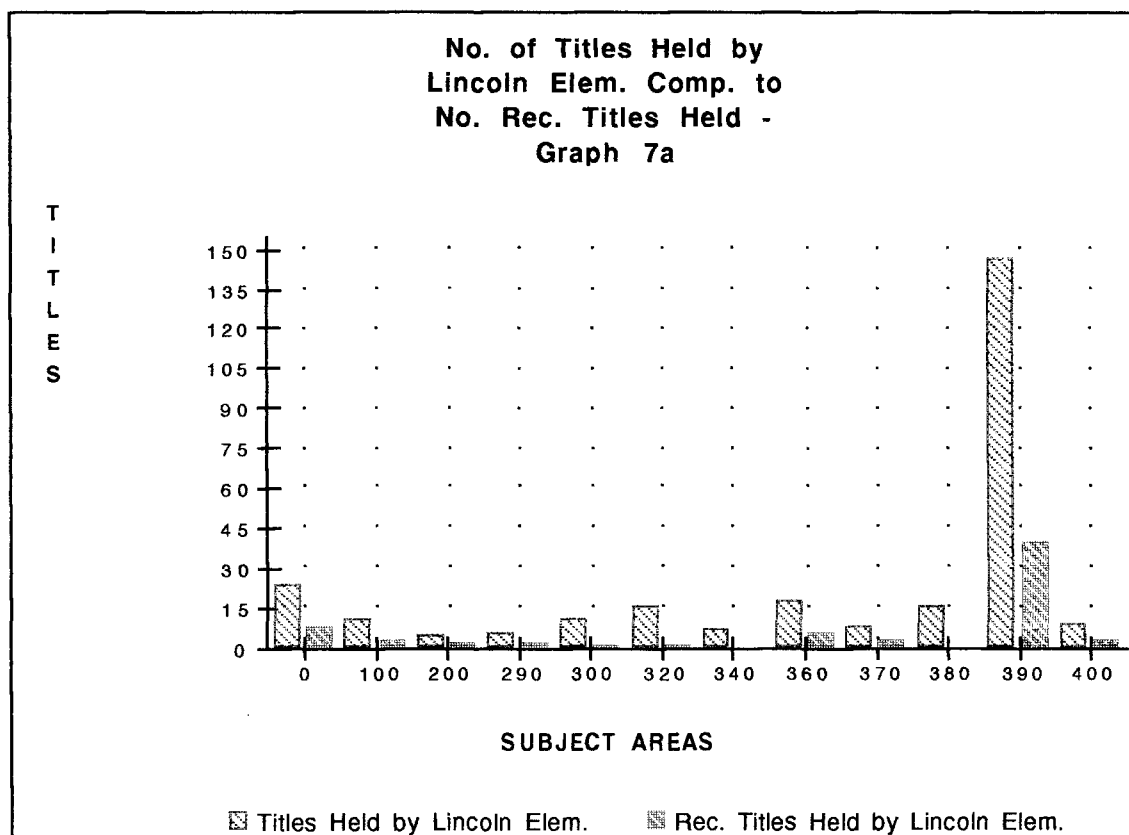




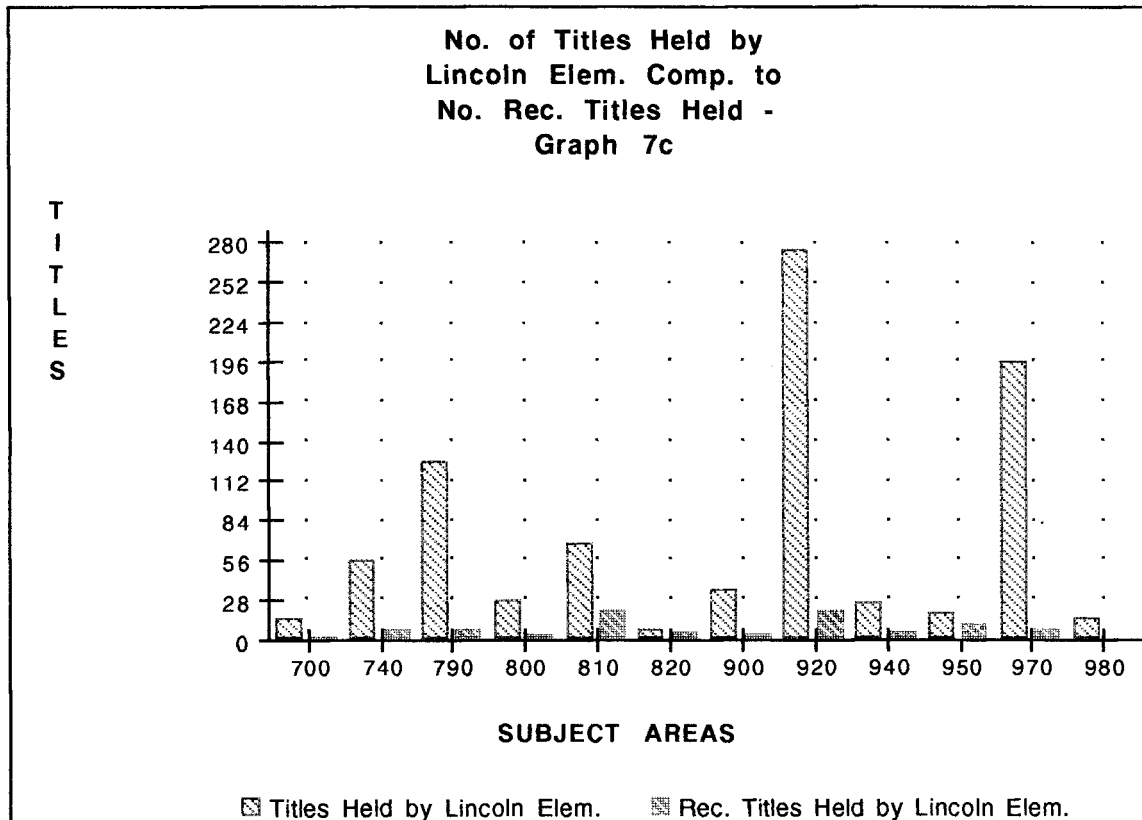
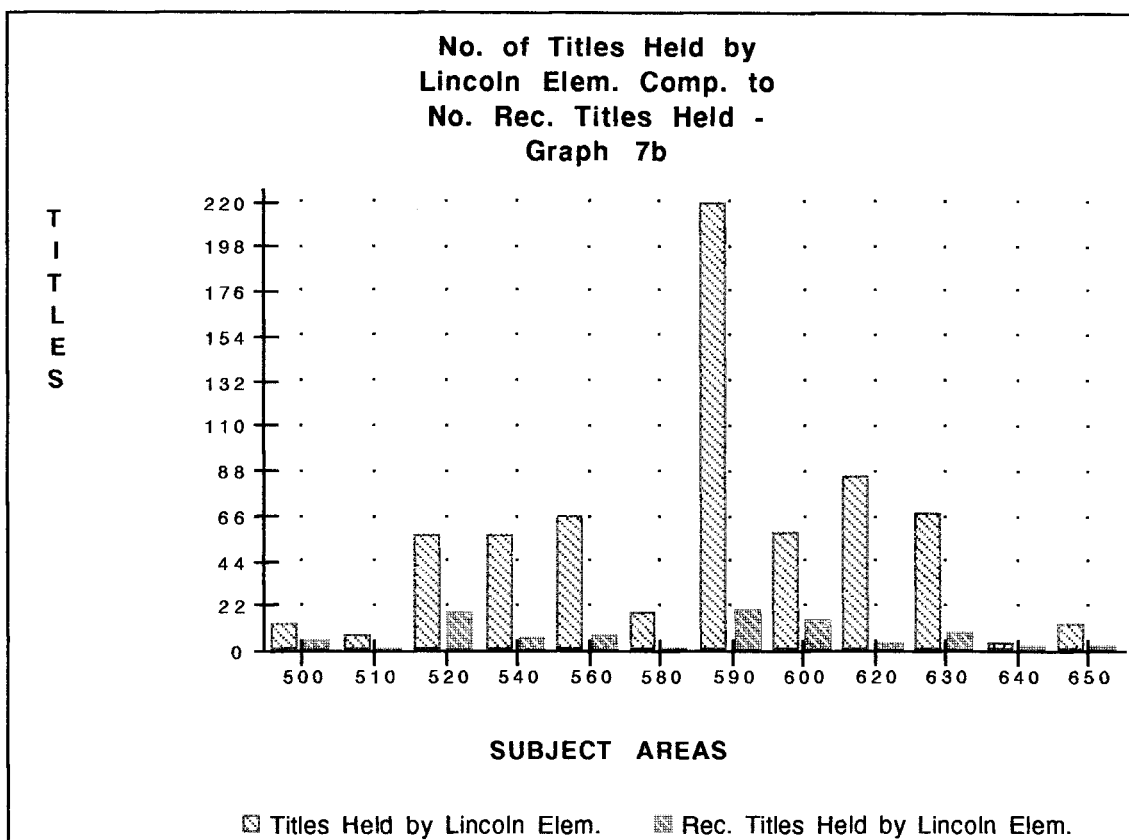


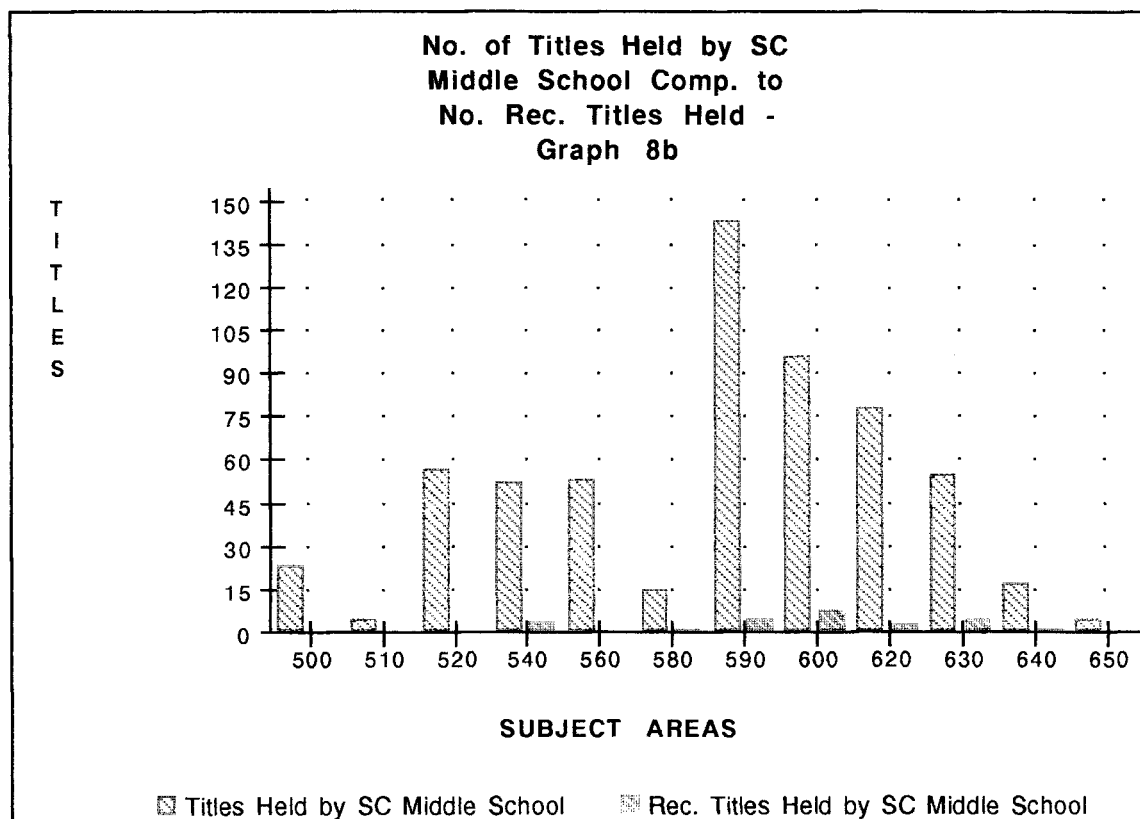
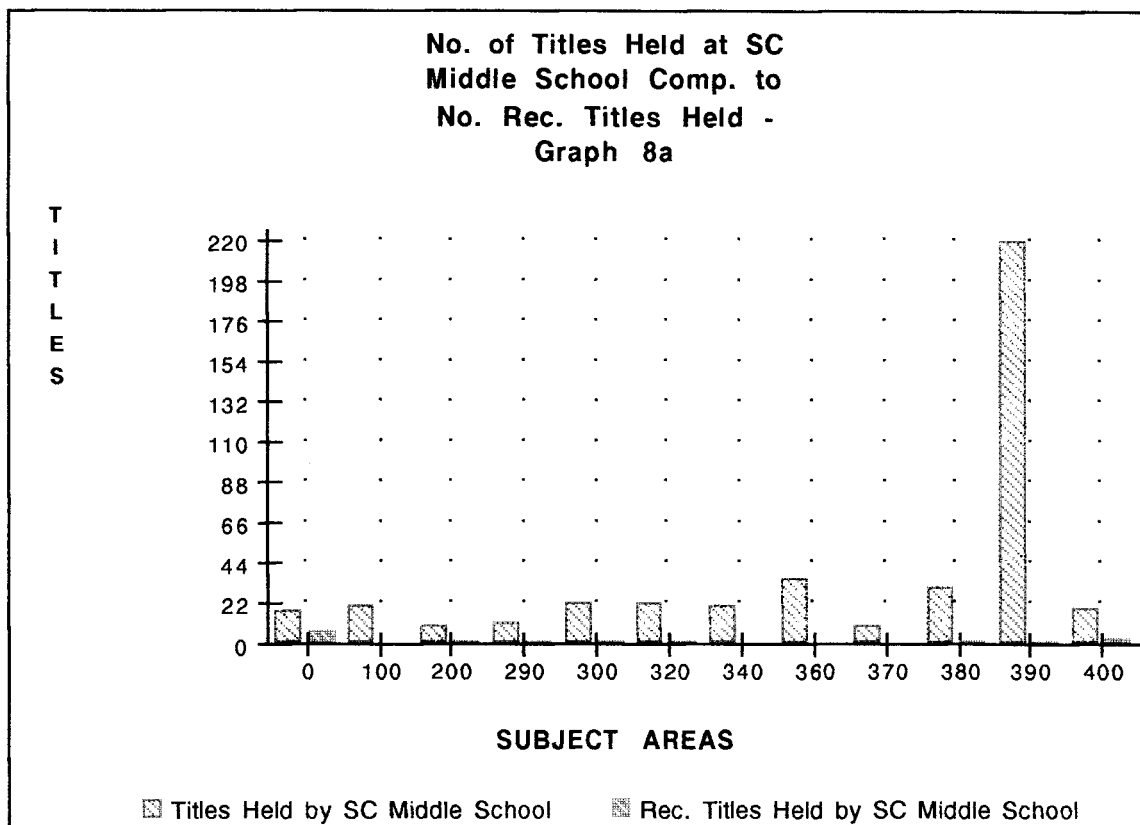


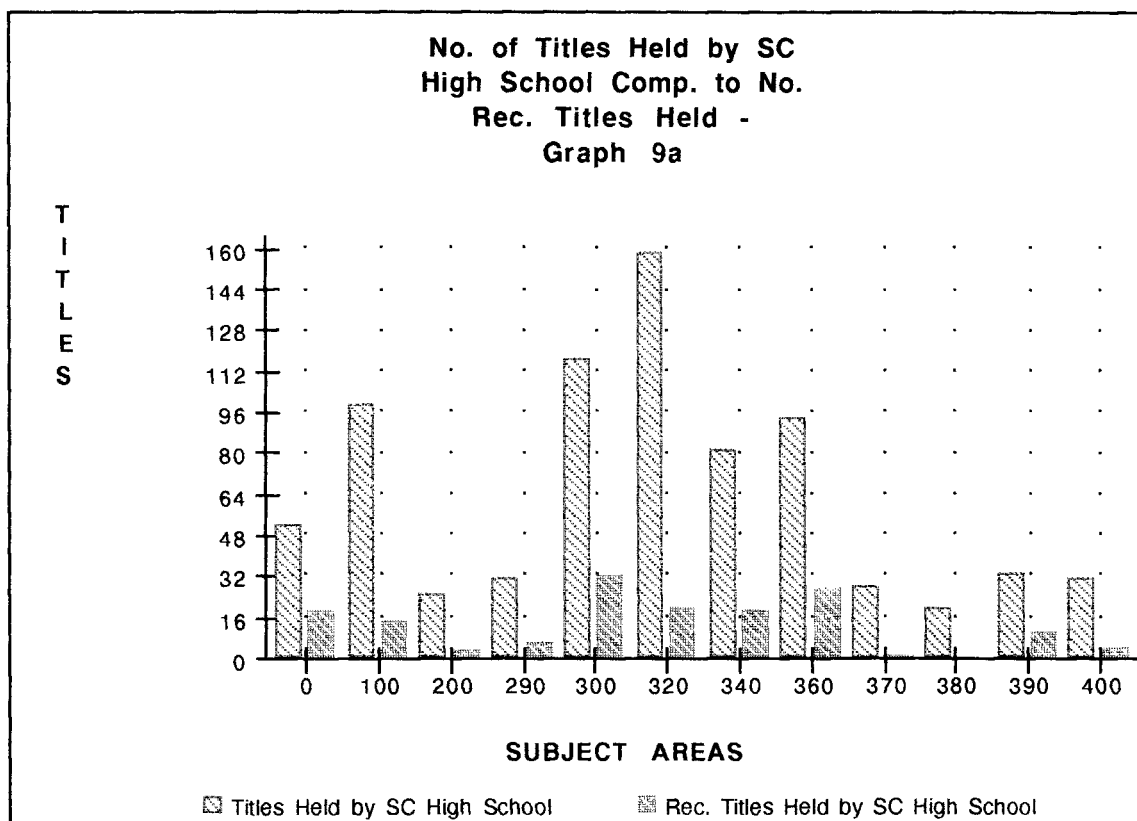
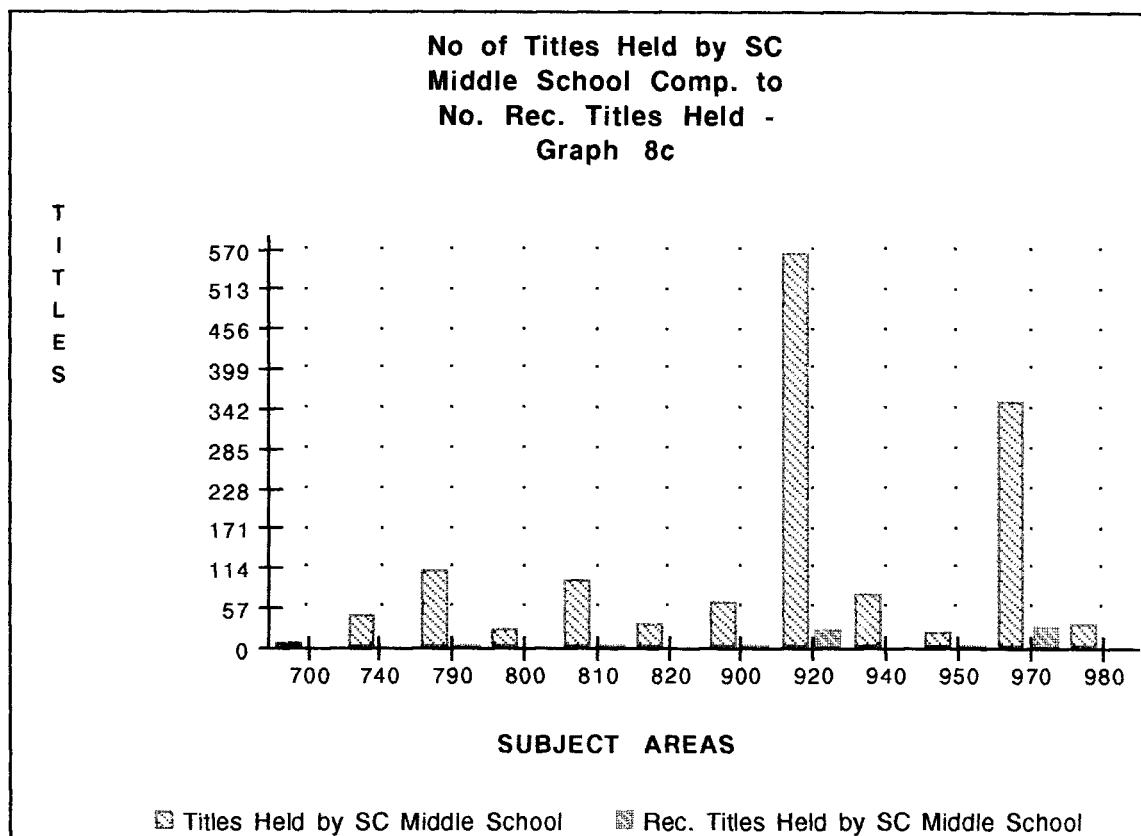
Bar graphs were next plotted to illustrate the total number of titles held by the Southern Cal libraries as compared to the number of titles recommended by the Wilson Catalog that are held by the Southern Cal libraries. As can be seen in Graphs 7a-c through 9a-c the information displayed was somewhat more informative, illustrating that in all three centers the 000's are fairly strong in quality, if not in quantity. The graphs also indicate that the areas of social studies, political science, economics, law and government, and social welfare at the Southern Cal High School are where the collection is the strongest.

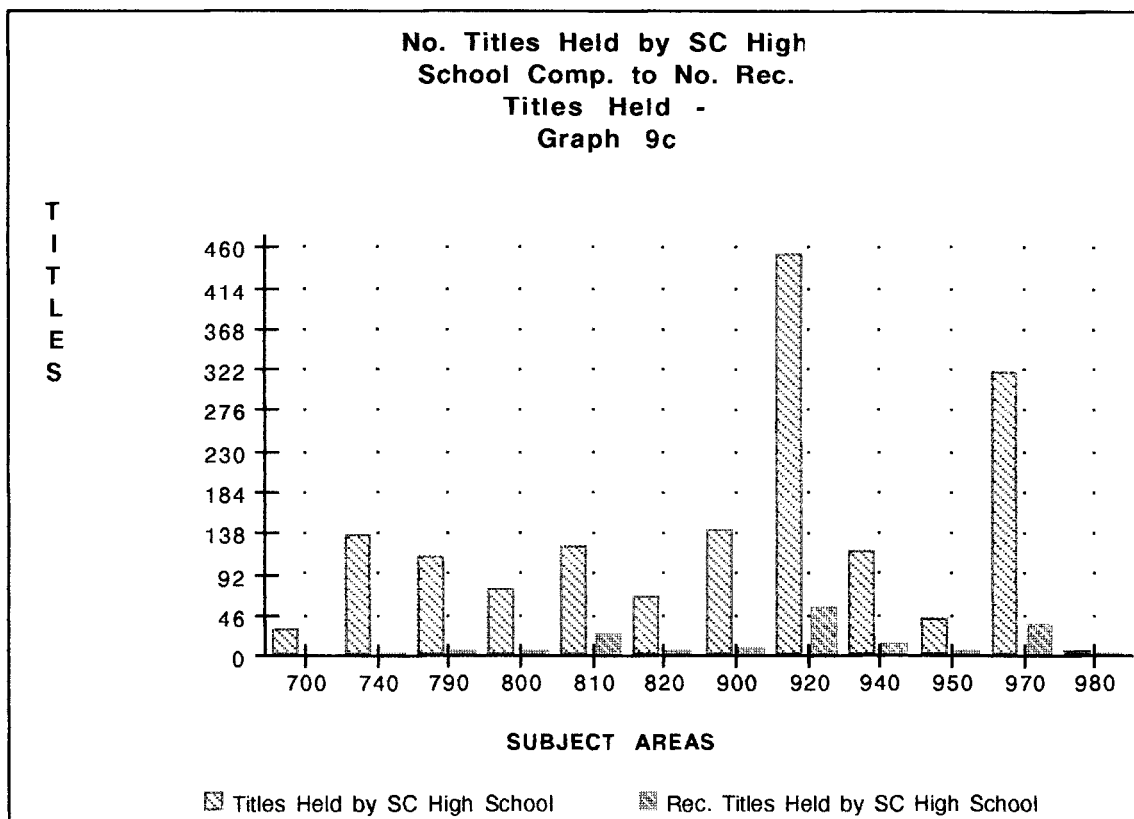
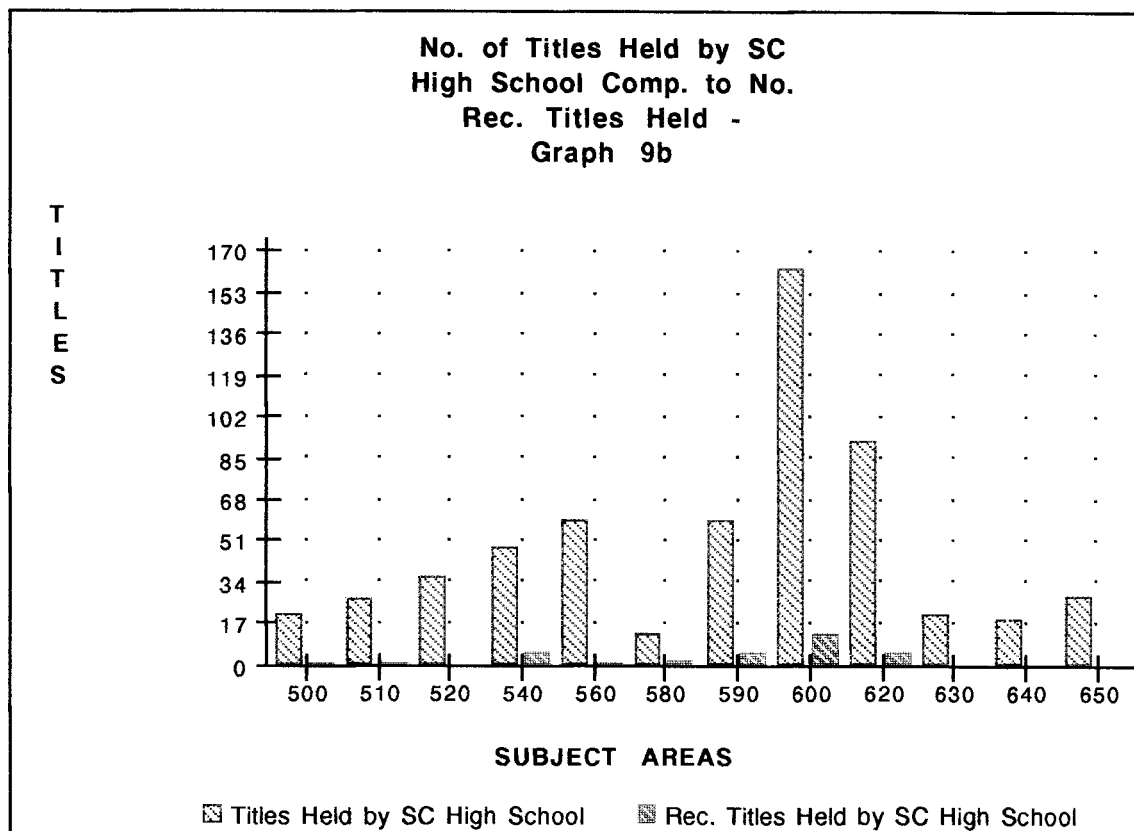












## **Analysis of process - Quality**

This process of gathering and analyzing the data for this phase of the study was facilitated greatly by the use of the Winnebago Circ/Cat system. The ability to sit at a catalog station that had been changed to the circulation screen and type in the titles listed in the Wilson Catalogs made doing this both easy and efficient. Using the catalog station ensured that the circulation station could remain open for use, however if conditions warranted it the regular circulation station could be used.

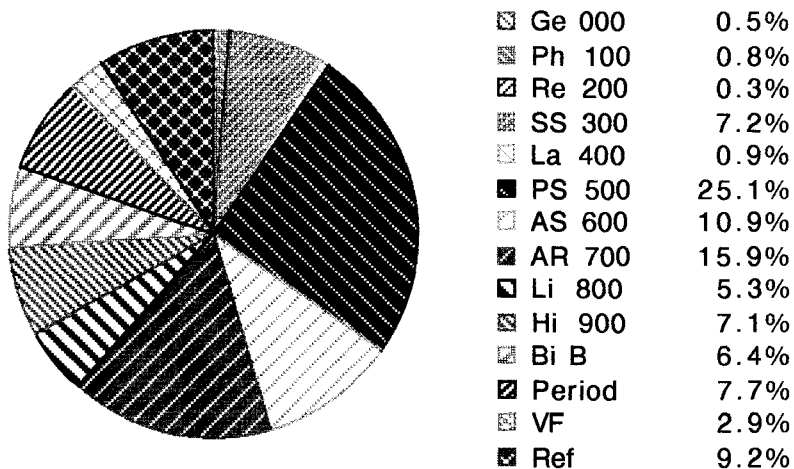
At first the plan was to simply print the Materials List for each category and manually check it with the Wilson Catalogs. This proved not to work due to the fact that not everyone classifies in the same manner. Quickly it was discovered that typing each title or author listed in the Classified Catalog section of the Wilson Catalog, while at the circulation screen, was the fastest and most accurate way to determine if the title was held in the Southern Cal system. This work was divided among the media center staff. The elementary associate checked the Children's Catalog at the Lincoln Elementary building, the middle school associate checked the Middle and Junior High School Library Catalog at the middle school building

and the high school associates checked the Senior High School Catalog at the high school. An unexpected benefit to this method was that when a title registered as a hit the location was also indicated. If a title was located in more than one center or at a center other than the one being checked it was recorded on the tally sheet in the appropriate location. The reports then generated by using the spreadsheets illustrated that while many of the titles found were not at the recommended location the district did, however, own them.

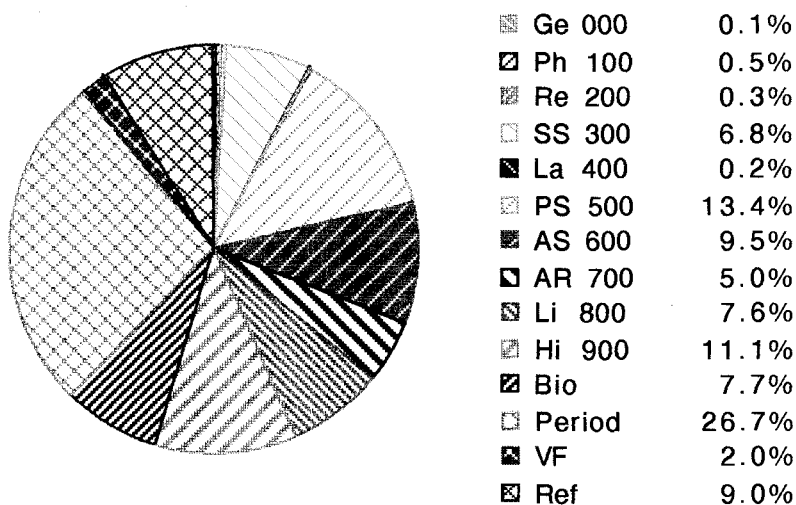
### **Analysis of Collection - Use**

Analysis of the use of the collections for the 1993-1994 school year was achieved by manually transferring the information to the Daily Circulation Statistics spreadsheet that had been collected on the Daily Record forms (see Appendixes B). A separate spreadsheet was created for each of the three libraries (see appendix K1-K3). This information was summarized and the results used to plot pie graphs 10, 11 and 12 which indicate the percentage of circulation for 14 pre-determined non-fiction areas at each of the libraries.

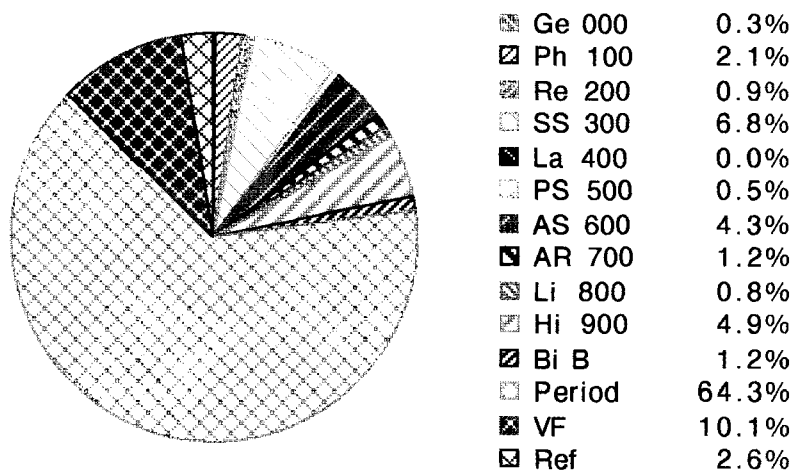
**Non-Fiction Circulation**  
**93/94 Lincoln Elem.**  
**Graph 10**



**Non-Fiction Circulation**  
**93/94 SC Middle School**  
**Graph 11**



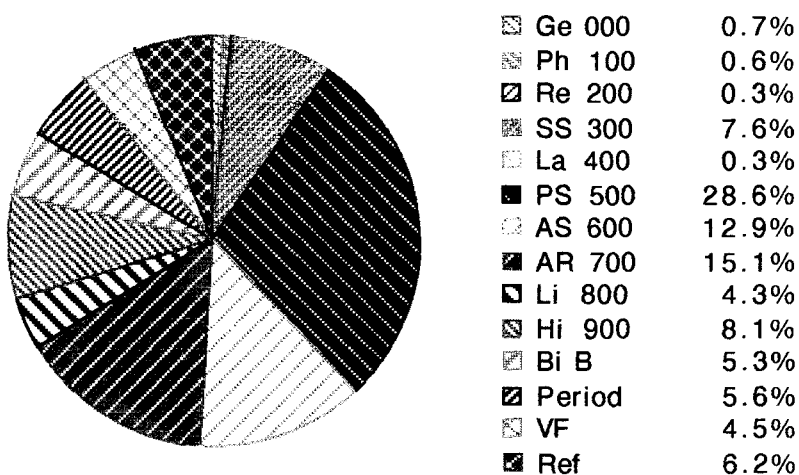
**Non-Fiction Circulation**  
**93/94 SC High School**  
**Graph 12**



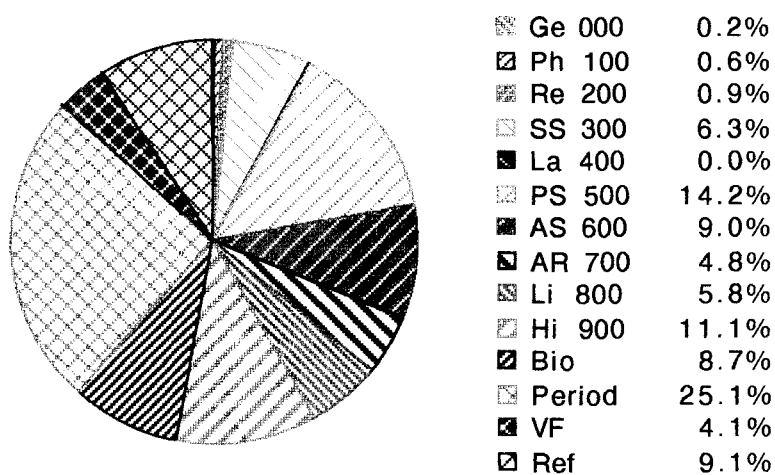
The collection use information for the 1994-1995 school year was obtained from the Winnebago system by generating a Material Usage report. This information was transferred to the Circulation Statistics spreadsheet (see Appendix K). The information was then used to plot pie graphs 13, 14, and 15 which again indicate the percentage of circulation for the 14 pre-determined non-fiction areas at each of the three centers.



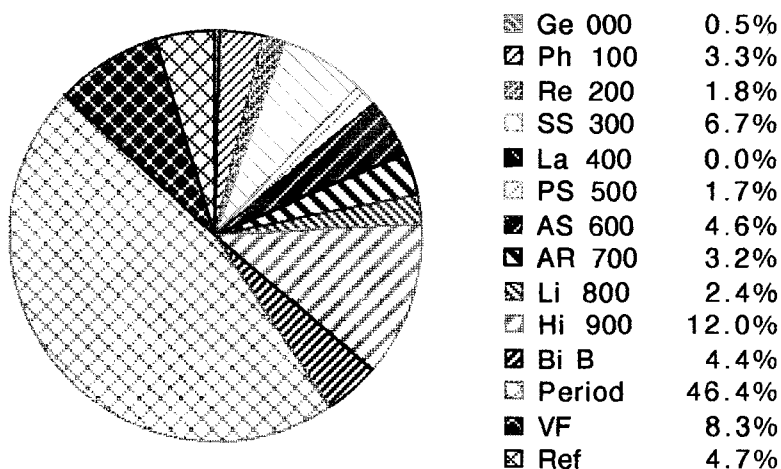
**Non-Fiction Circulation**  
**94/95 Lincoln Elem.**  
**Graph 13**



**Non-Fiction Circulation**  
**94/95 SC Middle School**  
**Graph 14**



**Non-Fiction Circulation  
94/95 SC High School  
Graph 15**



Studying the information presented in the graphs from both years reveals that for both the Lincoln Elementary and Southern Cal Middle School the non-fiction area used most is the 500's or the natural sciences. The 900's or history is the non-fiction area used most at the high school. The middle school and high school both rely heavily on periodicals although periodical use declined sharply from the 1993-1994 year to the 1994-1995 year. This may be due to the fact that students were more able to locate non-fiction materials due to the ease of using the Winnebago Circ/Cat system and the increased accuracy of that system.

## **Analysis of process - Use**

The old manual method used to gather and record circulation statistics for the 1993-1994 school year took about 10 minutes a day. In addition to the hours needed to add the data from each day into a separate spreadsheet there was an increased likelihood of human error along the way. The process of gathering and analyzing the data on the use of the collections for the 1994-1995 school year was greatly facilitated by the Winnebago system. The total process took about 10 minutes including generating the Materials Usage report, filling in the figures on a previously made spreadsheet and plotting and printing the graphs.

## Chapter 5

### Conclusion, Recommendations, Summary

The results of this study support the conclusion that the implementation of the Winnebago Circ/Cat system will aid in measuring the use of a collection and in the analysis of that collection. The ability to generate the necessary reports with a minimal time investment is of paramount importance to the staff of a small school library. Using the Winnebago system alone, however, is not enough.

Identifying the use, age and quality of a collection is important. The Winnebago Circ/Cat system has the ability to generate and/or facilitate the gathering of raw data necessary to begin the assessment of a collection. It is not however, designed to prepare the data for interpretation or analysis. A spreadsheet program is necessary to prepare the raw data so the librarian can analyze and present it.

A spreadsheet used to compile the data allows that data to be presented in graphic form. Using brief reports which include clear, easy to understand graphs will enable a lay person to comprehend the condition of a collection. The availability of an easy to use

spreadsheet program is, therefore, a necessity.

A trained school librarian will be able to accurately and efficiently interpret the raw data provided by these reports. With similar analysis of the relationship of the collection to the curriculum, the librarian will then be able to form a plan of action for using this information to create a collection development plan. In many cases a collection development plan will involve requests for increased funding. The information about the condition of a school library collection that will be necessary to inform administrators and school boards accurately, must be presented in a format that is easy to understand.

A compare and contrast type of investigation of the abilities of the other automated library systems on the market today would be recommended for future study. Perhaps there are other systems which have greater data manipulation capabilities that would be more useful to the process of collection analysis. It is further recommended that a study of the relationship of the collection to the curriculum be conducted and the results combined with the collection analysis data to gain a more complete picture of the collection.

A school librarian who can take hard indisputable data to a funding body will have a much greater chance of influencing their decision than one who tries to convince them that in the librarian's 'professional opinion' there is a need. This study has demonstrated that an accurate picture of the use and condition of a small school library collection can be obtained by using the data gathered by the Winnebago Circ/Cat system, a limited staff and only a little extra time. It will, however, aid in collection analysis only when an automated spreadsheet program is used to manipulate and illustrate the data. It falls then on the librarian to put the information gathered into a workable plan of action.

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## Appendix A

# Copyright Date Record Form

1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
0	10	20	30	40	50	60	70	80	90
1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
Location									
Classification Category									

## Appendix B

## Daily Record

Date \_\_\_\_\_

## Circulation

General Works	000	_____
Philosophy	100	_____
Religion	200	_____
Social Sciences	300	_____
Language	400	_____
Pure Science	500	_____
Applied Science	600	_____
Arts, Recreation	700	_____
Literature	800	_____
History	900-909	_____
	930-999	_____
Travel	910-919	_____
Biography	920	_____
Periodicals		_____
Vertical File Material		_____
Reference		_____
Total Non-Fiction		_____
Fiction		_____
Easy Readers		_____
Grand Total		_____

## Appendix C

### Usage by Material Types

Date:

Page:

Indexed by: Material Type

[illegible]

## Appendix D

### Classification Categories

000-099 Gen/Computer	650-699 Bus./Mfg
100-199 Phil./Psync.	700-739 General Arts
200-289 Religion	740-789 Fine Arts
290-299 Mythology	790-799 Sports/Rec.
300-319 Social Studies	800-809 General Literature
320-339 Poli. Sci./Econ.	810-819 American Lit.
340-359 Law/Govt.	820-899 Eng./World Lit.
360-369 Social Welfare	900-919 History/Geog.
370-379 Education	920-939 Biographies
380-389 Commerce	940-949 Hist. Europe
390-399 Folklore	950-969 Hist. Asia, Africa
400-499 Language	970-979 History N. America
500-509 General Sci.	980-999 Hist. S. Ame., Other
510-509 Math	
520-539 Space/Physics	
540-559 Chem./Earth Sci.	
560-579 Nat. History	
580-589 Botany	
590-599 Animals	
600-619 Gen. Sci./Anatomy	
620-629 Applied Science	
630-639 Agriculture	
640-649 Home Economics	

## Appendix E

## Materials List (long form)

Date:

Indexed by: Materials List

Page:

Barcode	Title Type	Author Publisher	Call# Copyright	ISBN/LCCN Location	Price User defined
10001	Hauntings 100-199	Time-Life	133.1 Tim c1989	0809463520 SCHS	8.95
10004	Man, myth , and magic 100-199	Boyd, Mildred Criterion Books	133.4 Boy c1969	SCHS	12.95

# Appendix F Age of Collection

Classification:	Date 1900		Date 1910		Date 1920		Date 1930		Date 1940		Date 1950		Date 1960		Date 1970		Date 1980		Date 1990		Average:	Average:	Total
Categories	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Age	Date	Titles
0																					*Error*	*Error*	
100																					*Error*	*Error*	
200																					*Error*	*Error*	
290																					*Error*	*Error*	
300																					*Error*	*Error*	
320																					*Error*	*Error*	
340																					*Error*	*Error*	
360																					*Error*	*Error*	
370																					*Error*	*Error*	
380																					*Error*	*Error*	
390																					*Error*	*Error*	
400																					*Error*	*Error*	
500																					*Error*	*Error*	
510																					*Error*	*Error*	
520																					*Error*	*Error*	
540																					*Error*	*Error*	
560																					*Error*	*Error*	
580																					*Error*	*Error*	
590																					*Error*	*Error*	
600																					*Error*	*Error*	
620																					*Error*	*Error*	
630																					*Error*	*Error*	
640																					*Error*	*Error*	
650																					*Error*	*Error*	
700																					*Error*	*Error*	
740																					*Error*	*Error*	
790																					*Error*	*Error*	
800																					*Error*	*Error*	
810																					*Error*	*Error*	
820																					*Error*	*Error*	
900																					*Error*	*Error*	
920																					*Error*	*Error*	
940																					*Error*	*Error*	
950																					*Error*	*Error*	
970																					*Error*	*Error*	
980																					*Error*	*Error*	
Location :																							
Date :																							

**Appendix G1**  
**Age of Collection - Analysis Form**  
**Lincoln Elementary**

Classification:	Date 1900		Date 1910		Date 1920		Date 1930		Date 1940		Date 1950		Date 1960		Date 1970		Date 1980		Date 1990		Average	Average	Total	Overall	
Categories	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Age of Titles	Date	Titles	Date	76
0	0	0	0	0	0	0	0	0	0	0	1	55	2	133	13	995	6	513	2	186	18	78	24		
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	371	6	497	0	0	17	79	11	Age	20
200	0	0	0	0	0	0	0	0	0	0	0	0	1	62	2	147	1	82	1	90	20	76	5		
290	1	0	0	0	1	21	0	0	1	40	2	118	0	0	0	0	0	0	1	92	51	45	6	Total Titles	1813
300	0	0	0	0	0	0	0	0	0	0	1	53	0	0	5	386	2	171	3	276	15	81	11		
320	0	0	0	0	0	0	0	0	0	0	0	0	2	128	9	669	4	333	1	93	20	76	16		
340	0	0	0	0	0	0	0	0	0	0	1	58	1	69	1	70	1	85	3	276	16	80	7		
360	0	0	0	0	0	0	0	0	0	0	1	54	0	0	4	298	8	694	5	460	12	84	18		
370	0	0	0	0	0	0	0	0	0	0	0	0	1	69	1	71	3	259	3	279	11	85	8		
380	0	0	0	0	0	0	0	0	0	0	0	0	6	312	6	442	3	264	1	93	27	69	16		
390	0	0	0	0	1	28	5	183	4	176	21	1160	38	2462	37	2750	28	2386	13	1204	26	70	147		
400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	155	4	324	3	273	12	84	9		
500	0	0	0	0	0	0	0	0	0	0	1	55	1	63	6	444	3	265	2	185	18	78	13		
510	0	0	0	0	0	0	0	0	0	0	0	0	2	127	5	373	1	82	0	0	23	73	8		
520	0	0	0	0	0	0	0	0	0	0	4	230	12	744	10	755	15	1297	16	1466	17	79	57		
540	0	0	0	0	0	0	0	0	0	0	7	390	7	438	16	1185	10	861	17	1556	18	78	57		
560	0	0	0	0	0	0	0	0	0	0	3	175	17	1091	13	972	20	1713	12	1101	18	78	65		
580	0	0	0	0	0	0	0	0	0	0	3	165	6	381	3	214	5	436	1	92	24	72	18		
590	0	0	0	0	0	0	1	33	3	134	13	720	42	2707	74	5533	45	3841	41	3761	20	76	219		
600	0	0	0	0	0	0	0	0	0	0	2	114	9	585	14	1028	15	1306	18	1636	16	80	58		
620	0	0	0	0	0	0	0	0	1	49	4	217	17	1086	24	1811	15	1262	24	2196	18	78	85		
630	0	0	0	0	0	0	0	0	0	0	0	0	8	509	25	1861	11	919	23	2122	15	81	67		
640	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	294	0	0	0	0	22	74	4		
650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	372	3	256	5	461	12	84	13		
700	0	0	0	0	0	0	0	0	0	0	1	51	5	329	4	301	3	263	3	272	20	76	16		
740	0	0	0	0	0	0	0	0	0	0	1	58	9	575	27	2026	13	1117	6	554	19	77	56		
790	0	0	0	0	0	0	0	0	0	0	3	165	11	723	52	3907	33	2735	27	2485	17	79	126		
800	0	0	0	0	0	0	0	0	2	96	4	222	13	827	6	443	3	264	1	94	29	67	29		
810	0	0	0	0	0	0	0	0	0	0	3	171	6	398	21	1578	34	2878	4	364	17	79	68		
820	0	0	0	0	0	0	0	0	0	0	2	114	2	130	1	73	1	85	2	180	23	73	8		
900	0	0	0	0	0	0	0	0	0	0	4	223	11	694	10	750	7	595	3	273	24	72	35		
920	0	0	0	0	0	0	1	31	5	223	54	2953	51	3258	68	5121	61	5250	36	3197	23	73	276		
940	0	0	0	0	0	0	0	0	0	0	1	58	2	127	4	309	11	928	8	726	13	83	26		
950	0	0	0	0	0	0	0	0	0	0	0	0	2	124	1	76	12	1048	4	360	11	85	19		
970	0	0	0	0	0	0	1	37	3	133	14	800	51	3284	19	1406	81	7064	28	2563	18	78	197		
980	0	0	0	0	0	0	0	0	0	0	1	58	1	65	0	0	12	1042	1	91	12	84	15		
	1	0	0	0	2	49	8	284	19	851	152	8437	336	21500	497	37186	480	41115	318	29057	20	76	1813		
Location : Lincoln Elementary School - Lake City, Ia																									
Date : Feb. 1996																									



**Appendix G2**  
**Age of Collection - Analysis Form**  
**Southern Cal Middle School**

Clsasification	Date 1900		Date 1910		Date 1920		Date 1930		Date 1940		Date 1950		Date 1960		Date 1970		Date 1980		Date 1990		Average	Average	Total	Overall	
Categories	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Total	Vol	Total	Age of Titles	Date	Titles	Date	73	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	618	4	339	6	563	12	84	18		
100	0	0	0	0	0	0	0	0	0	0	0	1	56	0	3	219	15	1295	1	91	13	83	20	Age	
200	0	0	0	0	0	0	0	0	0	0	0	0	5	320	2	143	2	178	2	185	21	75	11		
290	0	0	0	0	0	1	28	0	0	2	91	4	221	1	61	1	76	3	252	0	0	35	61	12	Total Titles
300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	519	5	441	10	911	11	85	22		
320	0	0	0	0	0	0	0	0	0	1	43	3	163	5	260	9	654	2	170	2	180	29	67	22	
340	0	0	0	0	0	0	0	0	0	0	0	0	0	7	378	5	361	9	757	0	0	25	71	21	
360	0	0	0	0	0	0	0	0	0	0	0	0	5	315	11	837	12	1037	7	640	15	81	35		
370	0	0	0	0	0	0	0	0	0	0	0	0	2	128	3	234	6	491	0	0	18	78	11		
380	0	0	0	0	0	0	1	30	0	0	4	208	9	562	9	664	6	523	2	182	26	70	31		
390	2	11	2	38	3	73	6	203	17	770	27	1506	73	4185	25	1967	47	3907	18	1648	31	65	220		
400	0	0	0	0	0	0	1	33	1	47	3	159	6	319	3	218	1	85	4	373	31	65	19		
500	0	0	0	0	0	1	26	0	0	0	0	0	10	512	3	218	9	777	0	0	29	67	23		
510	0	0	0	0	0	0	0	0	0	0	0	0	3	190	1	72	1	80	0	0	28	68	5		
520	0	0	0	0	0	0	0	0	0	0	0	0	19	1232	5	355	26	2223	7	643	18	78	67		
540	0	0	0	0	0	0	0	0	0	0	2	107	22	1365	9	669	17	1457	2	180	24	72	52		
560	0	0	0	0	0	0	0	0	0	0	1	52	11	460	9	678	20	1699	12	1109	21	75	53		
580	0	0	0	0	0	0	0	0	0	0	3	173	6	376	2	151	3	252	1	92	26	70	15		
590	0	0	0	0	0	0	1	36	2	94	11	617	48	2890	43	3188	27	2278	11	1005	25	71	143		
600	0	0	0	0	0	0	0	0	0	0	2	110	20	1299	18	1343	50	4338	6	542	16	80	96		
620	0	0	0	0	0	0	0	0	0	0	3	169	13	699	15	1114	40	3381	7	635	19	77	78		
630	0	0	0	0	0	0	0	0	0	0	1	51	8	515	17	1286	15	1270	14	1286	16	80	55		
640	0	0	0	0	0	0	0	0	0	0	0	0	3	207	4	298	10	849	0	0	16	80	17		
650	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	328	1	91	12	84	5			
700	0	0	0	0	0	0	0	0	0	0	0	0	3	192	2	150	1	89	1	93	21	75	7		
740	0	0	0	0	0	0	0	0	0	0	2	117	12	774	15	1108	14	1191	4	367	20	76	47		
790	0	0	0	0	0	0	0	0	1	48	3	168	12	531	49	3715	37	3068	8	743	21	75	110		
800	0	0	0	0	0	0	0	0	1	47	3	166	10	586	9	855	1	80	2	183	30	66	26		
810	0	0	0	0	0	2	68	8	365	7	399	39	2364	19	1428	16	1365	6	555	29	67	97			
820	0	0	0	2	34	0	1	35	3	136	1	54	14	771	6	453	1	85	5	463	34	62	33		
900	0	0	0	0	0	0	0	0	3	133	2	109	21	1214	16	1169	14	1193	11	1016	24	72	67		
920	0	0	0	2	31	1	28	7	251	32	1447	98	5364	147	8604	74	5586	120	10289	84	7745	26	70	565	
940	0	0	0	0	0	0	0	0	3	129	7	396	21	1280	16	1217	23	1977	5	458	23	73	75		
950	0	0	0	0	0	0	0	0	0	0	0	0	4	264	4	304	13	1125	1	90	15	81	22		
970	0	0	0	0	0	2	49	3	116	2	94	25	1342	108	6838	34	2258	87	7557	92	8422	20	76	353	
980	0	0	0	0	0	0	0	0	0	0	0	0	2	132	3	220	25	2157	4	364	12	84	34		
	2	11	6	103	8	204	22	772	76	3444	213	11707	669	39823	469	34135	686	58581	336	30855	23	73	2477		
Location : Southern Cal Middle School - Lohrville, Ia																									
Date : Feb. 1996																									

**Appendix G3**  
**Age of Collection - Analysis Form**  
**Southern Cal High School**

Classification:	Date 1900		Date 1910		Date 1920		Date 1930		Date 1940		Date 1950		Date 1960		Date 1970		Date 1980		Date 1990		Average	Average	Total	Overall
Categories	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Vol	Total	Age of Titles	Date	Titles	Date
0	0	0	0	0	0	0	0	0	0	0	1	55	7	454	13	969	24	2030	7	652	16	80	52	
100	0	0	0	0	0	0	1	39	0	0	1	52	11	728	50	3745	26	2224	10	916	18	78	99	Age
200	0	0	0	0	0	0	0	0	2	95	5	280	6	399	5	372	7	593	0	0	26	70	25	
290	0	0	1	13	1	27	2	62	2	91	5	274	8	521	2	147	7	596	3	276	31	65	31	Total Titles
300	0	0	0	0	0	0	0	0	0	0	5	280	17	1118	43	3158	35	2976	17	1557	18	78	117	
320	0	0	1	19	0	0	0	0	0	0	9	516	25	1642	56	4205	56	4749	12	1096	19	77	159	
340	0	0	0	0	0	0	0	0	0	0	4	222	19	1228	18	1331	30	2552	10	915	19	77	81	
360	0	0	0	0	0	0	0	0	0	0	0	0	9	597	23	1735	35	3021	27	2448	13	83	94	
370	0	0	0	0	0	0	0	0	0	0	0	0	8	533	13	984	7	594	0	0	21	75	28	
380	0	0	0	0	0	0	0	0	0	0	1	55	5	312	7	533	7	581	0	0	22	74	20	
390	0	0	0	0	1	23	0	0	2	80	2	114	8	515	9	682	10	858	1	92	24	72	33	
400	1	7	1	17	3	17	0	0	3	137	6	341	9	564	1	72	6	502	1	95	39	57	31	
500	0	0	0	0	0	0	0	0	0	0	3	168	8	501	0	0	9	766	1	90	23	73	21	
510	0	0	0	0	0	0	1	37	1	46	10	576	12	763	3	229	1	81	0	0	34	82	28	
520	0	0	0	0	0	0	0	0	1	47	6	348	10	620	7	550	5	424	7	639	23	73	36	
540	0	0	0	0	1	28	0	0	7	324	11	618	11	685	8	598	8	683	2	185	31	65	48	
560	0	0	0	0	0	0	0	0	1	48	4	226	29	1874	15	1102	7	585	4	360	26	70	60	
580	1	1	0	0	0	0	0	0	1	48	1	58	7	443	2	149	1	87	0	0	36	80	13	
590	0	0	0	0	1	29	2	76	3	136	4	224	18	1149	19	1398	8	663	4	374	27	69	59	
600	0	0	0	0	0	0	0	0	0	0	16	903	31	1999	56	4163	41	3473	19	1741	21	75	163	
620	0	0	0	0	0	0	0	0	0	0	5	286	31	2012	35	2610	15	1294	7	636	22	74	93	
630	0	0	0	0	0	0	0	0	0	0	0	0	8	452	9	673	4	332	0	0	27	69	21	
640	0	0	0	0	0	0	0	0	0	0	1	54	0	0	9	675	9	744	0	0	18	78	19	
650	0	0	0	0	0	0	0	0	0	0	0	0	10	582	11	815	7	594	1	93	24	72	29	
700	0	0	0	0	0	0	0	0	0	0	1	58	11	712	11	804	3	257	3	281	23	73	29	
740	0	0	1	17	1	28	4	146	6	258	10	549	45	2928	46	3406	21	1735	1	94	28	68	135	
790	0	0	0	0	0	0	0	0	0	0	8	435	24	1593	54	4036	20	1670	5	453	22	74	111	
800	3	8	2	32	3	70	3	108	5	230	20	1105	23	1486	5	388	7	597	3	273	38	58	74	
810	1	4	1	13	4	93	3	104	9	410	20	1111	34	2208	28	2043	16	1348	7	641	31	65	123	
820	1	6	2	33	9	228	10	348	5	214	9	498	16	1021	8	595	1	83	4	371	44	52	65	
900	1	0	0	0	0	0	4	150	6	250	14	795	41	2644	47	3441	22	1856	8	739	27	69	143	
920	5	37	3	41	8	202	15	544	36	1595	110	6018	134	8584	72	5326	48	4089	22	2009	33	63	453	
940	0	0	2	28	3	67	4	145	6	257	18	1023	42	2687	13	950	21	1768	7	642	31	65	116	
950	0	0	0	0	0	0	0	0	0	0	4	224	16	1062	6	438	10	849	7	640	21	75	43	
970	2	10	15	260	11	262	5	169	16	694	41	2290	103	8616	54	4017	53	4485	19	1742	32	64	319	
980	0	0	0	0	0	0	0	0	1	47	1	58	2	131	0	0	1	82	0	0	32	64	5	
	15	73	29	473	46	1072	54	1928	113	5007	356	19814	798	51363	758	56299	588	49821	219	20050	27	69	2976	
Location : Southern Cal High School - Lake City, Ia																								
Date : Feb. 1996																								

[illegible]

Appendix I1  
Number/Percent of Recommended Titles Held  
Lincoln Elementary

[illegible]

Appendix I2  
Number/Percent of Recommended Titles Held  
Southern Cal Middle School

Classification Categories	Wilson	Elem.	MS	HS	District
	Total	Total	Total	Total	Total
000 General/Computer	194	2	8	8	18
100 Phil./Psync.	67	1	0	9	10
200 Religion	25	0	2	2	4
290 Mythology	46	0	1	1	2
300 Social Studies	79	0	1	8	9
320 Poli. Sci./Econ.	100	1	1	9	11
340 Law/Govt	64	0	0	4	4
360 Social Welfare	141	1	0	13	14
370 Education	14	1	0	0	1
380 Commerce	11	0	1	0	1
390 Folklore	85	3	2	3	8
400 Language	67	2	3	4	9
500 General Sci.	46	1	0	1	2
510 Math	5	1	0	0	1
520 Space/Physics	72	8	0	4	12
540 Chem./Earth Sc.	50	3	4	1	8
560 Nat. History	50	3	0	0	3
580 Botany	22	0	1	0	1
590 Animals	113	7	5	6	18
600 Gen. Sci./Anatomy	165	5	7	14	26
620 Applied Science	86	2	3	5	10
630 Agriculture	33	6	5	0	11
640 Home Econ.	53	0	1	0	1
650 Bus./Mfg.	23	0	0	0	0
700 General Arts	38	2	0	2	4
740 Fine Arts	90	7	1	5	13
790 Sports/Rec.	147	5	2	0	7
800 General Lit.	58	0	1	3	4
810 American Lit.	88	2	5	9	16
820 English/World Lit	21	3	0	0	3
900 Hist./Geog.	59	2	2	4	8
920 Biographies	562	9	26	22	57
940 Hist. Europe	126	0	1	3	4
950 Hist. Asia, East, Africa	110	0	2	2	4
970 Hist. North Ame.	203	15	29	8	52
980 Hist. So. Ame, Other	23	0	1	0	1
<b>Total</b>	<b>3136</b>	<b>92</b>	<b>115</b>	<b>150</b>	<b>357</b>
<b>Percent</b>		<b>2.93%</b>	<b>3.67%</b>	<b>4.78%</b>	<b>11.38%</b>
<b>Location : Southern Cal Middle School - Lohrville, Ia</b>					
<b>Date : Feb. 1996</b>					
<b>Source : Middle and Junior High School Library Catalog 7th ed.</b>					

Appendix I3  
Number/Percent of Recommended Titles Held  
Southern Cal High School

[illegible]

Appendix J1  
Daily Circulation Statistics 1993-1994  
Lincoln Elementary

Date	Ge 000	Ph 100	Re 200	SS 300	La 400	PS 500	AS 600	AR 700	Li 800	Hi 900	Bi B	Period	VF	Ref	Total NF
10/20/93	0	0	0	1	0	0	0	1	0	1	0	5	0	2	10
10/21/93	0	0	0	0	0	1	2	3	2	2	2	6	0	3	21
10/22/93	0	0	0	0	0	3	1	1	2	2	0	3	0	0	12
10/25/93	0	0	0	2	2	7	10	8	3	1	6	3	0	1	43
10/26/93	0	1	0	1	0	7	10	8	5	3	2	0	0	0	37
10/27/93	0	0	1	0	0	1	4	4	2	1	7	0	0	0	20
10/28/93	1	1	1	3	0	15	5	7	5	2	1	5	1	2	49
10/29/93	0	0	0	3	0	0	0	2	1	0	1	0	0	3	10
11/2/93	0	0	0	1	0	2	0	3	4	1	2	0	0	0	13
11/3/93	0	0	0	2	0	0	1	5	0	1	2	3	0	0	14
11/4/93	1	0	0	0	0	2	1	0	1	0	0	0	0	0	5
11/8/93	0	1	0	2	1	8	10	11	2	5	5	8	0	1	54
11/9/93	0	1	0	8	0	29	12	13	4	1	5	6	0	2	81
4/25/94	0	1	0	0	0	6	8	19	1	6	4	1	0	0	46
4/26/94	0	1	0	6	0	33	9	5	3	14	4	0	0	6	81
4/27/94	0	0	0	2	0	8	2	2	0	4	0	2	0	6	26
4/28/94	0	0	0	0	0	4	0	0	0	0	0	4	0	5	13
5/2/94	0	1	0	3	0	10	7	9	2	1	3	0	0	0	36
5/3/94	0	0	0	3	0	20	5	7	1	0	1	0	1	3	41
5/4/94	0	0	0	0	0	3	1	0	4	0	1	2	1	3	15
5/5/94	0	1	0	0	1	5	0	0	0	1	3	2	1	3	17
5/9/94	0	1	0	2	1	4	4	5	1	2	0	0	0	0	20
5/11/94	0	0	0	1	0	7	5	0	0	0	1	0	0	1	15
5/16/94	0	0	0	0	0	3	2	0	2	1	0	1	1	0	10
	28	35	10	350	37	1134	511	740	274	301	318	379	116	424	4657

Appendix J2  
Daily Circulation Statistics 1993-1994  
Southern Cal Middle School

Date	Ge 000	Ph 100	Re 200	SS 300	La 400	PS 500	AS 600	AR 700	Li 800	Hi 900	Bio	Period	VF	Ref	Total	NF
10/20/93	0	0	0	1	0	3	7	0	3	3	0	10	1	10	38	
10/21/93	0	0	0	1	0	0	0	2	2	0	0	2	0	4	11	
10/22/93	0	0	0	4	0	9	4	0	1	7	0	7	0	2	34	
10/25/93	0	0	0	0	0	2	8	0	0	0	6	12	0	0	28	
10/26/93	0	1	0	2	0	0	0	1	0	3	5	6	0	0	18	
10/27/93	0	0	0	0	0	1	1	0	0	0	0	3	0	0	5	
10/28/93	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	
10/29/93	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
11/2/93	0	0	0	0	0	6	0	2	0	1	3	25	0	0	37	
11/3/93	0	0	1	3	0	4	0	0	0	8	2	6	0	0	24	
11/4/93	0	0	0	0	0	1	0	0	0	13	7	4	0	1	26	
11/8/93	0	0	0	1	0	0	1	2	4	0	1	5	0	1	15	
11/9/93	0	0	0	1	0	1	0	0	0	2	2	0	0	0	6	
4/29/94	1	0	1	10	0	14	7	3	0	12	0	4	0	0	52	
5/2/94	0	0	0	1	0	4	11	0	4	5	0	2	0	0	27	
5/3/94	0	0	0	17	0	0	0	0	4	18	0	2	0	0	41	
5/4/94	0	0	0	1	0	0	1	1	0	9	0	3	0	0	15	
5/5/94	0	0	0	1	0	0	0	0	0	3	0	1	0	1	6	
5/6/94	0	0	0	0	0	0	3	1	1	3	1	0	0	1	10	
5/9/94	0	0	0	2	0	2	3	0	0	5	2	4	0	1	19	
5/10/94	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	
5/11/94	0	0	0	0	0	0	0	5	2	4	0	0	0	0	11	
5/12/94	0	0	0	1	0	0	0	0	2	0	1	1	0	1	6	
5/13/94	0	0	0	13	0	0	0	2	6	0	0	0	0	0	21	
5/16/94	0	0	0	0	0	0	0	0	5	1	0	3	0	0	9	
															0	
Totals	6	16	36	374	7	519	374	201	340	411	278	1319	65	293	4239	



Appendix J3  
Daily Circulation Statistics 1993-1994  
Southern Cal High School

Date	Ge 000	Ph 100	Re 200	SS 300	La 400	PS 500	AS 600	AR 700	Li 800	Hi 900	Bi B	Period	VF	Ref	Total NF
10/20/93	0	0	0	3	0	0	1	0	0	0	0	9	0	0	13
10/21/93	0	0	0	3	0	0	7	0	2	0	0	12	4	2	30
10/22/93	0	0	0	0	0	0	4	1	0	0	1	7	1	2	16
10/25/93	0	0	0	0	0	0	2	2	1	0	0	40	7	3	55
10/26/93	0	0	0	22	0	0	4	0	0	0	1	9	9	4	49
10/27/93	0	1	0	0	0	0	1	1	0	0	1	18	6	1	29
10/29/93	0	1	0	3	0	0	5	2	0	0	0	10	4	0	25
11/2/93	0	0	0	3	0	1	8	0	0	0	1	40	7	0	60
11/3/93	0	0	0	6	0	0	4	1	0	0	0	8	7	0	26
11/4/93	0	2	0	0	0	0	7	0	0	0	0	10	1	0	20
11/8/93	0	1	0	1	0	0	0	0	0	0	1	10	7	0	20
11/9/93	0	0	0	2	0	0	6	0	0	0	0	7	1	2	18
11/10/93	0	0	0	4	0	0	0	0	0	0	1	12	0	0	17
11/12/93	0	0	0	3	0	1	5	1	0	0	1	4	1	0	16
4/29/94	0	0	0	0	0	0	2	0	0	0	0	5	1	0	8
5/2/94	0	0	0	1	0	0	0	0	0	0	0	20	8	0	29
5/4/94	0	1	0	1	0	0	0	1	0	1	0	30	2	1	37
5/5/94	0	3	0	1	0	1	3	0	0	4	1	39	12	4	68
5/6/94	0	0	0	4	0	0	4	0	0	1	0	39	7	5	60
5/9/94	0	0	0	4	0	0	1	1	1	1	0	136	0	0	144
5/10/94	0	0	0	10	0	0	3	1	0	1	3	90	10	1	119
5/11/94	0	0	0	6	0	0	1	0	0	0	0	20	7	0	34
5/18/94	1	0	0	0	0	0	0	0	1	0	0	10	2	1	15
															0
	7	57	24	165	0	18	159	32	22	129	48	1497	258	87	2503

## Lincoln Elementary

[illegible]

Appendix K2  
Circulation Statistics 1994-1995  
Southern Cal Middle School

[illegible]

Appendix K3  
Circulation Statistics 1994-1995  
Southern Cal High School

[illegible]